

**EPA WORK ASSIGNMENT NUMBER: 053-RDRD-A245**

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**HDR**

**RAC 2 PROGRAM**

**DIRECTIVE 1 TECHNICAL MEMORANDUM**

**NEW CASSEL/HICKSVILLE GROUNDWATER CONTAMINATION OU1**

**SUPERFUND SITE**

**TOWNS OF NORTH HEMPSTEAD, HEMPSTEAD AND OYSTER BY**

**NASSUA COUNTY, NEW YORK**

**September 2020**

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## Acronyms

bgs	below ground surface
CLP	Contract Laboratory Program
COC	contaminant of concern
CVOCs	chlorinated volatile organic compounds
D&B	Dvirka and Bartilucci Consulting Engineers
DO	dissolved oxygen
DPW	Department of Public Works
DQCR	daily quality control report
DQOs	data quality objectives
EPA	United States Environmental Protection Agency
ft	feet
HASP	Health and Safety Plan
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc.
IDW	investigation-derived waste
MCL	maximum contaminant level
NCDOH	Nassau County Department of Health
NCIA	New Cassel Industrial Area
ND	non-detect
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation-reduction potential
OU1	Operable Unit 1
ppb	parts per billion
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PDI	Pre-Design Investigation
PRPs	potentially responsible parties
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RD	Remedial Design
RAC	Remedial Action Contract
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SVOCs	semi-volatile organic compounds
TCA	1,1,1-trichloroethane
TCE	trichloroethene
TCL	target compound list
TCLP	toxicity characteristic leaching procedure
UAO	Unilateral Administrative Order
UFP	Uniform Federal Policy
UGA	Upper Glacial Aquifer
USGS	United States Geological Survey
VOC	volatile organic compound

## **1. INTRODUCTION**

### **1.1. Purpose**

This Pre-Design Investigation (PDI) Directive 1 Technical Memorandum was prepared for the United States Environmental Protection Agency (EPA) by Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (HDR) for the New Cassel / Hicksville Groundwater Contamination Superfund Site (the Site) Operable Unit 1 (OU1), located in the Towns of North Hempstead, Hempstead and Oyster Bay, Nassau County, New York (Figure 1). This PDI Directive 1 Technical Memorandum is part of the Remedial Design (RD) being performed by HDR under Work Assignment Number 053-RDRD-A245, under the EPA Remedial Action Contract (RAC) 2 Contract Number EP-W-09-009. The PDI Directive 1 was conducted in accordance with the OU1 Pre-Design Investigation (PDI) Work Plan included as Attachment 1 to the Unilateral Administrative Order (UAO) issued by EPA on March 22, 2018 and amended on May 17, 2018. The UAO directed the potentially responsible parties (PRPs) in the Eastern, Central and Western Plumes to perform the work required by the UAO. Because the Western Plume PRPs have refused to comply with the UAO, EPA is performing the work required in the Western Plume and certain common work elements including PDI Directive 1. PDI Directive 1: Synoptic Water Level Gauging and Groundwater Sampling requires the collection of two rounds of synoptic water level gauging and groundwater sampling to be performed. HDR conducted the first round of sampling and gauging on the existing monitoring wells in the OU1 area in November/December 2019. The purpose of the Directive 1 Technical Memorandum is to document the methods used to collect the data and summarize the results for round one of the synoptic water level gauging and groundwater sampling completed under Directive 1. This Directive 1 Technical Memorandum will be amended following the completion of round two which includes gauging and sampling of monitoring wells to be installed as part of PDI Directive 2 of the RD Pre-Design Work Plan. The work reported herein was performed under the EPA-approved Quality Assurance Project Plan (QAPP) (HDR 2019), site-specific Health and Safety Plan (HASP), and other applicable requirements.

This report contains descriptions and results of the activities performed as part of PDI Directive 1. Brief summaries of the remaining sections are presented below.

- **Section 2 – Site Background Information** describes the physical setting of the site and history, site geology and hydrogeology, extent of contamination and remedy selected to treat the OU1 area.
- **Section 3 – Directive 1 Field Investigation Activities** summarizes the field work completed as part of the PDI Directive 1.
- **Section 4 – Directive 1 Field Investigation Results** presents the findings from the work completed as part of the PDI Directive 1.
- **Section 5 – Evaluation of Usability** summarizes the usability of the PDI data.
- **Section 6 – Conclusions** discusses the conclusions based on the findings of PDI Directive 1

## **2. SITE BACKGROUND INFORMATION**

### **2.1. Site Description**

The Site comprises a wide-spread area of groundwater contamination within the Towns of North Hempstead, Hempstead, and Oyster Bay, Nassau County, New York (See Figure 1). The Site is estimated to include approximately 6.5 square miles that has been characterized by volatile organic compound (VOC)-contaminated groundwater that has impacted several water supply wells, including four Town of Hempstead wells (Bowling Green 1 and 2, Roosevelt Field 10, and Levittown 2A), six Hicksville water supply wells (4-2, 5-2, 5-3, 8-1, 8-3, and 9-3), and one Village of Westbury water supply well (11). Analytical results of groundwater samples from the Site have revealed concentrations of VOCs exceeding the EPA's promulgated health-based protective maximum contaminant levels (MCLs), which are enforceable standards for various drinking water contaminants and New York State's standards.

OU1 of the Site is composed of a discrete portion of contaminated groundwater down gradient of the New Cassel Industrial Area (NCIA) shown on Figure 1. OU1 is located primarily in Salisbury, an unincorporated area of the Town of Hempstead. However, the portion of OU1 north of Grand Boulevard is located within the Hamlet of New Cassel in the Town of North Hempstead. The area comprising OU1 includes approximately 211 acres and consists of residential properties, as well as some commercial areas. Up gradient of OU1, the NCIA encompasses approximately 170 acres of land. The NCIA is bounded by the Long Island Railroad to the north, Frost Street to the east, Old Country Road to the south and Grand Boulevard to the southwest.

The Bowling Green Wells 1 and 2 were taken out of service in 2018 for evaluation of the current water system and future treatment needs for these wells. Though currently out of service, the Town of Hempstead's Bowling Green Water District Wells I and 2 are on property that is located within OU1.

### **2.2. Site Background and History**

The NCIA was developed for industrial use during the 1950s through the 1970s and remains densely populated with an estimated 200 industrial and commercial properties. Review of Nassau County Department of Health (NCDOH) and New York State Department of Environmental Conservation (NYSDEC) reports indicates that leach pools and/or dry wells located on up gradient properties in the NCIA were generally used for disposal of wastewater at these facilities until sewers were installed. In 1986, as part of a county-wide groundwater investigation, NCDOH identified extensive groundwater contamination throughout the NCIA. Following the NCDOH investigations, NYSDEC conducted site assessment activities within the NCIA from 1994 to 1999 to identify the sources of groundwater contamination. During the NYSDEC investigations groundwater data revealed contaminants from the NCIA were impacting the Bowling Green Water District water supply, which is comprised of two water supply (extraction) wells located approximately 1,000 feet down gradient of the NCIA. The water treatment system for the Bowling Green Water District already included granular activated carbon (GAC) to treat for VOCs. However, based on results of the investigations the Town of Hempstead installed a supplemental treatment system in 1996 which included the addition of an air stripper.

Based on NYSDEC's findings, 17 individual facilities within the NCIA were listed on NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites between May 1995 and September 1999. Investigations have been completed, and response actions have been selected by NYSDEC under state law for the 17 facilities. Of the 17 facilities, five require no further action, one requires further monitoring, and 11 have on-going response actions including continued operation of air sparging and soil vapor extraction systems.

From 1999 to 2000 NYSDEC conducted a remedial investigation and feasibility study (RI/FS) for the NCIA Offsite Groundwater. Based on the investigation, NYSDEC determined that a variety of disposal

activities within the NCIA had resulted in the disposal of chlorinated VOCs (CVOCs), including 1,1,1-trichloroethane (TCA), tetrachloroethene (PCE), and trichloroethene (TCE). Some of these CVOCs were released or have migrated from the NCIA to surrounding areas, including the area bordering the NCIA south of Old Country Road and Grand Boulevard. Results from groundwater samples collected as part of the RI/FS indicated three separate plumes beneath the NCIA that were migrating down gradient into the area identified as the NCIA Offsite Groundwater. Following the RI/FS the NYSDEC issued a Record of Decision (ROD) for the NCIA Offsite Groundwater in October 2003.

The NYSDEC's ROD selected in-well vapor stripping with localized vapor treatment as the remedy to treat the contaminated groundwater. The ROD also provided for use of a contingency remedy using groundwater pump and treat, if pilot testing determined the selected remedy to be impractical due to engineering or economic reasons. In 2009 a PDI was completed by Dvirka and Bartilucci Consulting Engineers (D&B). Results of the PDI determined the aquifer to be anisotropic and as a result D&B concluded that in-well air stripping would not be an effective technology for remediating the groundwater. NYSDEC then switched the remedial technology to the contingency remedy of extraction and treatment and a subsequent PDI for the contingency remedy was finalized in December 2011. During the period when the 2011 PDI was being conducted the NYSDEC requested that EPA list the site on the National Priority List (NPL). In March 2011 the EPA proposed the New Cassel Hicksville Groundwater Contamination site to the NPL, which included the NCIA Off-site Groundwater Site. The Site was finalized to the NPL in September 2011 and no further actions were taken by the NYSDEC.

In 2011, after the Site was included on the NPL, the EPA completed a supplemental remedial investigation which is documented in the Supplemental Remedial Investigation Memorandum dated July 2013. The memorandum summarized historical groundwater data, outlined response activities conducted, characterized the Site, and provided recommendations for future investigation and response activities at the Site. Concurrent with this supplemental remedial investigation the EPA also undertook a supplemental feasibility study which was documented in the Supplemental FS Memorandum dated July 2013. Following completion of the Supplemental RI and FS a ROD was issued by the EPA on September 30, 2013.

### **2.3. Site Geology and Hydrogeology**

The principal hydrogeologic units underlying OU1 at the site are the glacial outwash and morainal deposits known as the Upper Glacial Aquifer (UGA) and the underlying Magothy Formation and Matawan Group (Magothy). Beneath these two units are the Raritan Clay member and the Lloyd Sand member of the Raritan Formation.

The UGA is estimated to be 60 to 80 feet thick and consists predominantly of coarse-grained sands and gravels. A distinct transition between the UGA and Magothy units has not been observed in the OU1 area. The underlying Magothy Formation sediments (estimated to be approximately 600 feet thick) are characterized by sand and silty sand with discontinuous clay and silt layers. Geologic studies in the area have revealed that sediments tend to become finer in size fraction downward in the Magothy Formation, except within the basal portion where coarse-grained sands and gravels are prevalent.

Unconfined groundwater is generally found at the site between 38 to 50 feet below ground surface (bgs). Groundwater within the UGA and Magothy aquifers flows in a south-southwest direction in the area downgradient of the NCIA. Historic pumping of the Bowling Green water supply wells possibly influenced the groundwater flow direction above the depth of their production interval, which was approximately 470 to 580 feet bgs.

## **2.4. Extent of Groundwater Contamination**

Based on studies conducted in the OU1 area the contaminants of concern are PCE, TCE, and TCA. Breakdown products of PCE, TCE, TCA and other minor constituents are present at lower levels suggesting that biodegradation is limited within the OU1 area.

Results also indicated three separate plumes (eastern, central and western) emanating from the NCIA into the OU1 area. The eastern plume is comprised predominantly of PCE with some TCE and cis-1,2-dichloroethene (cis-1,2-DCE) and no TCA. The central plume consists of PCE, TCE, and TCA and their breakdown products (cis-1,2-DCE, 1,1-dichloroethane [1,1-DCA], 1,2-DCA, 1,1-DCE). The western plume consists of TCE and PCE with some TCA and breakdown products (cis-1,2-DCE, 1,1-DCA, 1,2-DCA, 1,1-DCE).

Contaminant distribution is influenced by local geology and hydrogeology. When the Bowling Green Water District supply wells were in service, the pumping from these wells produced a significant downward vertical gradient drawing groundwater deeper. There is also indication of a downward migration of contamination such that the contamination depth increases as the distance from the NCIA increases.

## **2.5. Description of Selected Remedy**

On September 30, 2013 EPA issued a ROD selecting an interim remedy for OU1. The proposed remedy addresses groundwater contamination in the area down gradient of Old Country Road, Grand Boulevard, and the NCIA and includes the following components:

- A combination of (a) in-situ treatment of groundwater via in-well vapor stripping and (b) extraction of groundwater via pumping and ex-situ treatment of extracted groundwater prior to discharge to a publicly owned treatment works or reinjection to groundwater (to be determined during design). The purpose is to establish hydraulic containment and effectuate removal of contaminant mass where concentrations of total volatile organic compound concentrations are greater than 100 micrograms per liter;
- In-situ chemical treatment, such as in-situ chemical oxidation, to target high concentration contaminant areas, as appropriate;
- Long-term monitoring to track changes in the concentration of groundwater contaminants in OU1 to ensure the remedial action objectives (RAOs) are attained;
- Development of a Site Management Plan to ensure proper management of the remedy post-construction. The Site Management Plan will include provisions for any operation and maintenance and long-term monitoring required for the remedy, as well as periodic review and engineering certifications; and
- Institutional controls consisting of existing local requirements that prevent installation of drinking water wells and information devices to limit exposure to contaminated groundwater.

Individual facilities within the NCIA are considered to be among the sources of groundwater contamination for OU1. Response actions which are addressing sources of contamination in the NCIA are being conducted at those up gradient facilities, and they continue to be overseen by NYSDEC under its state hazardous waste cleanup program. The on-going, State-authorized response actions at the NCIA facilities are not part of this OU1, although the successful completion (i.e., source control or cleanup) of addressing the source area(s) at the up gradient individual NCIA facilities, under NYSDEC oversight are anticipated and were assumed in evaluating the potential for attaining the objectives of the selected remedial alternative in the ROD.

The environmental benefits of the remedy may be enhanced by giving consideration, during the design phase, to technologies and practices that are sustainable in accordance with the EPA Region 2's Clean and Green Policy. This will include consideration of green remediation technologies and practices, including granular activated carbon regeneration.

### **3. DIRECTIVE 1 FIELD INVESTIGATION ACTIVITIES**

#### **3.1. Synoptic Water Level Gauging**

A synoptic water level gauging using an electronic water level indicator was conducted on November 20 and 21, 2019. There were 62 monitoring wells proposed for water level gauging which included wells owned by NYSDEC, United States Geological Survey (USGS), Nassau County, Nassau County Department of Health (NCDOH), and Westbury Water District. There were 16 wells that could not be gauged because they could not be located or were inaccessible. Table 1 summarizes the total wells proposed for gauging and those wells unable to be gauged. Table 2 summarizes the well information and depth to water measurements for the wells that could be gauged.

During the water level gauging HDR performed a well assessment survey on each well. Summaries of the well assessment surveys are included in Appendix A.

#### **3.2. Groundwater Sampling**

Groundwater sampling was conducted from November 25, 2019 through December 10, 2019. Samples were collected from 28 existing monitoring wells in the Western, Eastern, and Central Plumes. Samples were collected from three additional wells by the Frost Street responsible party.

Monitoring wells were sampled using the USEPA Region 2 low-flow sampling method. Low-flow purging/sampling was conducted with the pump set at the middle of the screen interval and at least two feet from the bottom of the well to prevent disturbance and re-suspension of sediment present in the bottom of the well. Exceptions to this are discussed below in Section 3.5.

During groundwater sampling, field parameters including specific conductivity, oxidation-reduction potential (ORP), temperature, pH, dissolved oxygen (DO) and turbidity were measured and recorded on data sheets to document the stabilization of parameters prior to sampling. The well purging and sample collection data are recorded on field sampling logs included in Appendix B.

Upon stabilization, the samples were collected in certified-clean glassware procured by HDR and placed on ice for preservation. Samples were then shipped under chain of custody protocols to the assigned Contract Laboratory Program (CLP) laboratory (Chemtech) for analysis of target compound list (TCL) VOCs by Method 8260B (i.e., SOM02.4). Custody records are included with the laboratory analytical reports in Appendix C.

#### **3.3. IDW Management**

A total of 122 gallons of purge and equipment decontamination water was generated. The investigation-derived waste (IDW) was containerized in appropriately-labeled 55-gallon steel drums and temporarily staged at 650 Commercial Avenue in Garden City, NY. The building is currently under the control of the Nassau County Department of Public Works (DPW), and is secured with a chain link fence and lockable gate. The IDW subcontractor collected samples from the drums on 2/4/2020 and submitted them for waste characterization analyses including VOCs, semi-volatile organic compounds (SVOCs), toxicity characteristic leaching procedure (TCLP), RCRA metals, polychlorinated biphenyls (PCBs), reactivity, ignitability and corrosivity. Results of the analyses are included in Appendix D. Drums were removed from the site on March 5, 2020 and taken to Republic Environmental Systems in Hatfield PA for disposal as non-hazardous waste. A copy of the waste manifest is included in Appendix D.

### **3.4. Quality Assurance/Quality Control**

The overall Quality Assurance/Quality Control (QA/QC) objective was to develop and implement procedures for field sampling, chain-of-custody, laboratory analyses, and reporting to ensure data were collected in a uniform manner, and that data were of consistently high quality. In order to collect and record data in a uniform manner, the Uniform Federal Policy (UFP) QAPP (controlling document) was prepared with QA/QC procedures for the Directive 1 field work.

Field logbooks and daily quality control reports (DQCR) were prepared, which recorded all major on-site activities during the field activities. These documents are included in Appendix E.

Field QC samples collected during the groundwater sampling event included one trip blank, equipment blank, and field blank for each day of sampling. Two field duplicates were collected. Analytical results of QA/QC samples are presented in Section 5.

### **3.5. Field Changes**

Field changes that occurred as a result of limited access to wells or field conditions that required adjustments to the work are summarized below:

1. There were 62 wells initially proposed for the collection of depth to water measurements. During the first day of gauging two additional wells (MBCW-2D and 103-MW-D) were added by the EPA project manager for a total of 64 wells. Of the 64 wells proposed, only 16 were unable to be gauged as discussed above in Section 3.1.
2. During sampling the total depths for wells EW-1B and EW-2B were measured at 157.55 and 131.1 ft bgs, respectively. According to sampling records from 1999 EW-1B had a total depth of 164 ft bgs and was screened from 154 to 164 ft bgs and EW-2B had a total depth of 142 ft and was screened from 132 to 142 ft bgs. Based on the depth to bottom measurements collected during the 2019 sampling event there is no screen exposed at EW-2B and only approximately 3.5 ft of screen is exposed for EW-1B. During sample collection the pump was lowered down to approximately one to two feet above the measured bottom of the well in order to obtain a representative sample of the well depth while minimizing the disturbance of bottom sediments in the well. However, because of the amount of sediment collected in the bottom of these two wells, groundwater sample results may not be representative of the screen depth for these wells.
3. Samples collected from the Frost Street wells FSMW-14A, FSMW-14C, and FSMW-13A were collected by Ensafe, the consultant for the Frost Street properties. These data were emailed to HDR by Ensafe on February 4, 2020.

## **4. DIRECTIVE 1 FIELD INVESTIGATION RESULTS**

### **4.1. Groundwater Depth to Water Measurements**

A groundwater contour map was generated based on the depth to water measurements collected during the water level gauging. Based on the collected data groundwater flows to the south-southwest. Figures 2 and 3 show the resulting groundwater contours for the Upper Glacial Aquifer and the Magothy. Measurements taken during the PDI Directive 1: Synoptic Water Level Gauging are summarized in Table 2.

There is only one known group of pumping wells that were actively pumping during the collection of the depth to water measurements. This system is a groundwater pump and treat system for remediation of groundwater contamination from the Frost Streets Superfund Site under the NYSDEC Superfund Program. The system consists of four extraction wells (EX-1A, EX-1B, EX-1C, and EX-1D) located just north of Old Country Road. Each extraction well is screened in a different depth interval from 50-100 ft bgs, 100 – 150 ft bgs, 150 – 200 ft bgs, and 200 – 250 ft bgs. Wells operate at flow rates between 30 gpm – 48 gpm based on information from the 2019 Comprehensive Groundwater Monitoring Report for the Frost Street Sites, prepared by Ensafe, dated September 2019. The wells closest to the extraction system that could be impacted by the system are the Frost Street cluster wells FSMW-13A/B/C and FSMW-14A/B/C.

Water levels at well clusters were evaluated and are summarized in Table 3. The majority of well clusters indicate a downward gradient with the exception of well clusters FSMW-14B/14C, MW-02/03, and MW-05/06, which indicated upward gradients of 0.000375 ft/ft, 0.0035 ft/ft, and 0.0005 ft/ft, respectively. Downward gradients were between 0.001 ft/ft and 0.0063 ft/ft with an average of 0.0026 ft/ft.

### **4.2. Groundwater Analytical Results**

Results for the groundwater samples are summarized in Table 4 and on Figure 4. Figure 4 also includes a summary of results from groundwater samples collected as part of the 2011 NYSDEC PDI investigation and January 2019 as part of the EPA OU3<sup>1</sup> investigation activities. Sample results were compared to the cleanup levels published in the ROD for contaminants identified as a contaminant of concern (COC). Contaminants not identified as a COC in the ROD were compared to the New York State groundwater quality standards.

#### Western Plume

There were seven wells (MW-12, EX-2, MW-11S, MW-11D, MW-7, MW-8, MW-13) sampled in the Western Plume area. VOC compounds consistently detected over the cleanup levels in these six wells included PCE (28 – 1,200 parts per billion [ppb]), TCE (19 – 730 ppb) and cis-1,2-DCE (17 – 160 ppb). Other VOC compounds exceeding the cleanup levels in monitoring well MW-11D included 1,1-DCE (34 ppb), TCA (8 ppb), 1,1-DCA (15 ppb), and chloroform (7.2 ppb). Trichlorofluoromethane (TCFMA) [11 ppb] which is not identified as a COC in the ROD, was detected above the groundwater quality standard in MW-11D. Significant differences between sample results from November/December 2019 and 2011 were noted in wells MW-11S and MW-11D. Both wells had increases in PCE concentrations from 140 to 1,200 ppb (MW-11S) and 460 to 1,100 ppb (MW-11D). The total VOCs concentration in these wells increased from 435 ppb to 1,484 ppb (MW-11S) and 1,095 ppb to 2,074 ppb (MW-11D).

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<sup>1</sup> EPA OU3 is a fund lead OU geographically downgradient of EPA OU1.

Historic data for wells installed prior to 2011 include two wells in the Western Plume area (MW-7 [90 – 110 ft deep] and MW-8 [120 – 140 ft deep]). Results from 2002 to the 2019 sampling events were graphed over time for chlorinated VOCs and associated daughter compounds for these wells (Appendix F). Based on the graphs, concentrations for these compounds have trended downward in both wells for the last three sampling events.

#### Central Plume

There were 11 wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-10, MW-9, MW-16S, MW-16, and EW-2B) sampled in the Central Plume area. VOC compounds consistently detected over the cleanup levels included TCA (5.6 – 18 ppb), 1,1-DCA (13 – 38 ppb), 1,1-DCE (non-detect [ND] – 81 ppb), cis-1,2-DCE (ND – 23 ppb), PCE (ND – 120 ppb), and TCE (ND - 140 ppb). Significant differences between sample results from November/December 2019 and 2011 were noted in wells MW-4, MW-9, and MW-16D. Concentrations of TCE decreased from 620 ppb to 76 ppb in MW-4. Concentrations of PCE and TCE increased from ND to 29 ppb and 2.3 to 140 ppb in MW-9 and 2.7 to 120 ppb and 29 to 53 ppb in MW-16D, respectively.

Historic data for wells installed prior to 2011 includes eight wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-9, and EW-2B). Results from 2001 to the 2019 sampling events were graphed over time for chlorinated VOCs and associated daughter compounds for these wells (Appendix F). Based on the graphs, concentrations have generally trended downward in MW-2, MW-3, MW-4, and EW-2B. Concentrations increased in MW-1 and MW-9. MW-5 and MW-6 increased in concentrations during the 2004 sampling event, but then decreased for subsequent sampling events.

#### Eastern Plume

There were 13 wells (FSMW-14A, FSMW-14C, and FSMW-13A, FSMW-14B, FSMW-13B, FSMW-13C, MW-14, MW-15, EX-1, MW-17S, MW-17D, EW-1B, and EW-1C) sampled in the Eastern Plume area. VOC compounds consistently detected over the cleanup levels included cis-1,2-DCE (ND – 34 ppb), PCE (0.18 – 7,000 ppb), and TCE (ND – 900 ppb). Concentrations of PCE and TCE increased in MW-17D from 610 to 7,000 ppb and 740 to 900 ppb, respectively. Decreases of PCE and TCE were observed in EX-1, MW-14, FSMW-13B, FSMW-13C, and FSMW-14A compared to results from previous sampling events conducted in 2019 and 2011.

Historic data for wells installed prior to 2011 includes eight wells (FSMW-13A, FSMW-13B, FSMW-13C, FSMW-14A, FSMW-14B, FSMW-14C, EW-1B and EW-1C). Results from historic sampling events to the present were graphed for the primary chlorinated VOCs and associated daughter compounds for these wells (Appendix F). Based on the graphs, concentrations have generally trended downward in EW-1B, FSMW-13B, FSMW-13C, FSMW-14A, and FSMW-14B. VOC concentrations appear to be generally stable in FSMW-13A. VOC concentrations in this well have ranged between 140 ppb to 300 ppb since 2015. In FSMW-14C concentrations were generally between 100 to 270 ppb from 2006 to 2015 and the concentrations with lower concentrations observed in 2016 and 2019 sampling events. VOC concentrations in EW-1C remained fairly stable (12 ppb to 22 ppb) from 2001 to 2008 and then increased to greater than 40 ppb in 2019.

## **5. EVALUATION OF USABILITY**

HDR conducted a data evaluation of the usability of the results received from the 28 groundwater samples collected. Based on the evaluation, data for the PDI sampling event conducted in November/December 2019 fulfilled the site-specific QA/QC requirements. Overall, the data met the project data quality objectives (DQOs), and are appropriate to characterize the levels of contaminants in the aqueous samples collected from the site. The full evaluation of data usability is included in Appendix G.

## **6. CONCLUSIONS**

Results of groundwater sampling conducted under PDI Directive 1 indicated that the downgradient deepest wells in the OU1 plumes (MW-11D, MW-9, MW-16D, and MW-17D) are all showing increases in VOC concentrations.

The PDI Work Plan proposed 27 locations for installation of vertical profile borings and/or monitoring wells. There are no changes proposed to locations of vertical profile borings/monitoring wells identified in the PDI Work Plan based on the groundwater samples collected in 2019. The proposed locations for the vertical profile borings and monitoring wells to be installed are shown on Figure 5. In accordance with the PDI Work Plan groundwater grab samples will be collected at 20-ft intervals indicated on Figure 5. Following the collection of grab samples results will be evaluated to identify the final screen depth for monitoring wells to be installed at these locations. Final depths for wells will be reviewed and approved by EPA before installing wells. Vertical profile borings/wells identified for installation in the Western Plume area will be completed by the EPA and wells identified for installation in the Central and Eastern Plumes will be completed by the PRPs for those areas.

# **FIGURES**



New Cassel/Hicksville Groundwater Contamination Superfund Site  
Nassau County, NY

Figure 1  
Site Location Map  
March 2020



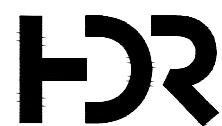
**LEGEND:**

- EXISTING WELL
- GROUNDWATER CONTOUR ELEVATION [DASHED WHERE INFERRED]

0 800' 1,600'  
SCALE: 1" = 800'

NOTES:

1. GROUNDWATER CONTOURS SHOWN ARE BASED ON GROUNDWATER DEPTH TO WATER MEASUREMENTS COLLECTED BY HDR IN NOVEMBER 2019 AND BEST AVAILABLE ELEVATION DATA FOR EACH WELL.



UPPER GLACIAL AQUIFER (UGA)  
GROUNDWATER CONTOURS

NEW CASSEL HICKSVILLE GROUNDWATER CONTAMINATION  
OPERABLE UNIT 1 SUPERFUND SITE

DATE  
8/2020  
FIGURE  
2



**LEGEND:**

- EXISTING WELL
- GROUNDWATER CONTOUR ELEVATION [DASHED WHERE INFERRED]

0 800' 1,600'  
SCALE: 1" = 800'

NOTES:

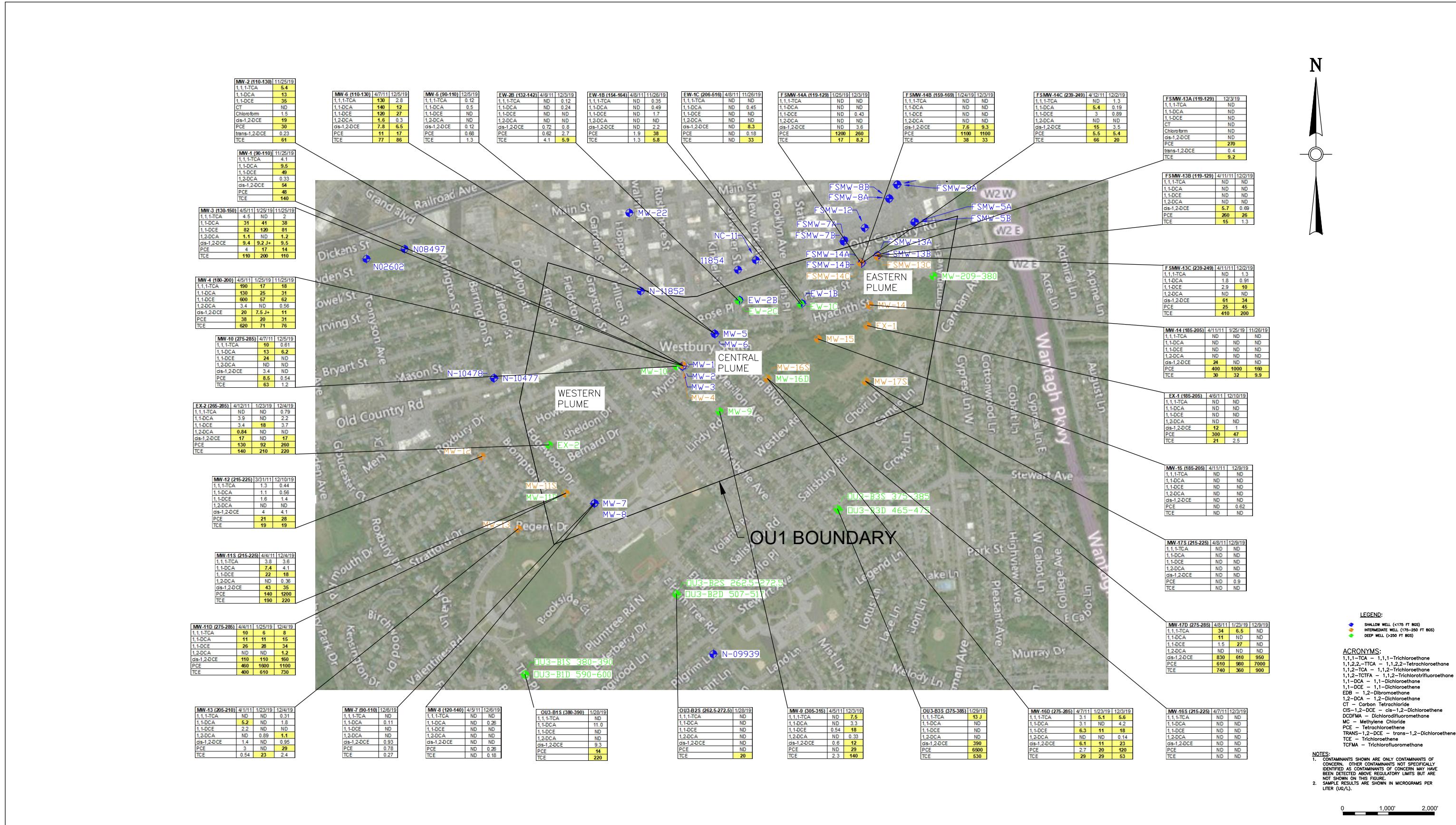
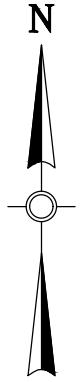
1. GROUNDWATER CONTOURS SHOWN ARE BASED ON GROUNDWATER DEPTH TO WATER MEASUREMENTS COLLECTED BY HDR IN NOVEMBER 2019 AND BEST AVAILABLE ELEVATION DATA FOR EACH WELL.

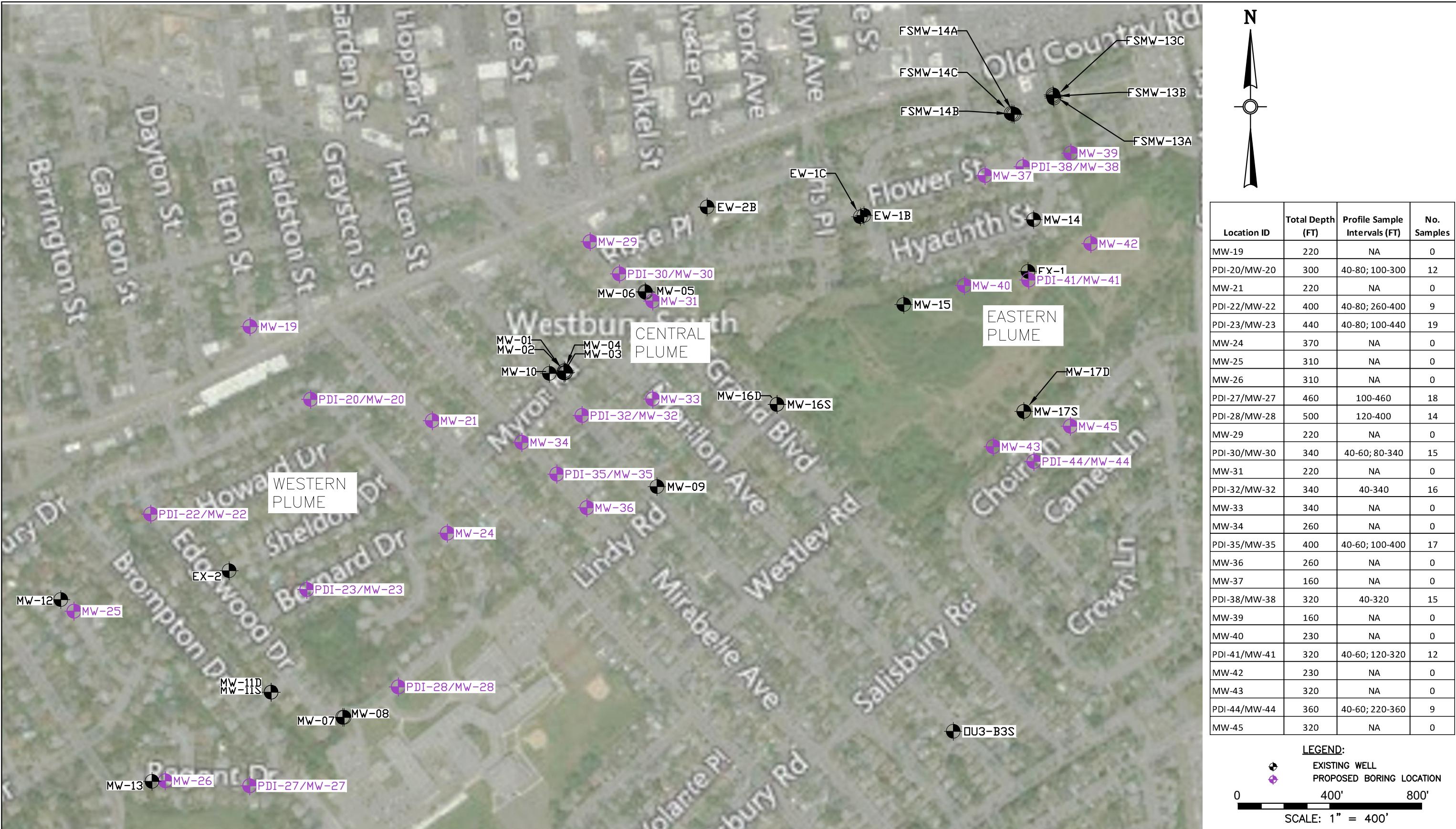


MAGOOTHY AQUIFER  
GROUNDWATER CONTOURS

NEW CASSEL HICKSVILLE GROUNDWATER CONTAMINATION  
OPERABLE UNIT 1 SUPERFUND SITE

DATE  
3/2020  
FIGURE  
3





PROPOSED VERTICAL PROFILE BORINGS/  
MONITORING WELL LOCATIONS

NEW CASSEL HICKSVILLE GROUNDWATER CONTAMINATION  
OPERABLE UNIT 1 SUPERFUND SITE

DATE: 8/2020  
FIGURE: 5

# TABLES



Table 1  
Summary of Wells Proposed for Gauging

Well ID	Screen Depth (ft bgs)	Installed Depth (ft bgs)	Hydrologic Unit	Depth to Water Collected?	Location / Well Condition
EW-1B	154 - 164	164	Magothy	Yes	In the middle of Flower Street between Hyacinth St and Iris Place
EW-1C	506 - 516	516	Magothy	Yes	In the middle of Flower Street between Hyacinth St and Iris Place
EW-2B	132 - 142	142	Magothy	Yes	On the Road in front of 2531 and 2535 Astor Place.
EW-2C	504 - 514	514	Magothy	No	EW-2C was heavily corroded and could not be opened.
OU3-B1S 380-390	380 - 390	390	Magothy	Yes	Between road and sidewalk
OU3-B2S 262.5-272.5	262.5 - 272.5	272.5	Magothy	Yes	In the Road
OU3-B3S 375-385	375 - 385	385	Magothy	Yes	In front of the house on the road
N-08984	47 - 52	52	UGA	No	Could not locate
N-09938	72 - 77	79.6	UGA	Yes	Manhole labeled as water; in front of Building 1
N-10292	40 - 50	50	UGA	No	Could not locate
N-10319	47 - 57	57	UGA	Yes	Located inside Fence.
N-10324	47 - 57	57	UGA	No	Could not locate
N-10466	50 - 60	60	UGA	No	Could not locate
N-10475	47 - 57	57	UGA	No	Could not locate
N-10476	110 - 130	130	Magothy	No	Could not locate
N-10328 (NC-11)	48 - 58	58	UGA	Yes	Next to the one way sign. Shallow well was marked
	47 - 57				Almost under the road sign of Old Country Rd and Barrington St.
N-10477		57	UGA	No	Cap could not be opened
N-10478	101 - 121	121	Magothy	Yes	Almost under the road sign of Old Country Rd and Barrington St.
EX-1	185 - 205	205	Magothy	Yes	
EX-2	265 - 285	285	Magothy	Yes	In the road on Sheldon Dr
MW-01	90 - 110	110	Magothy	Yes	Intersection of Bowling Green and Myron next to stop sign opposite 2436 Myron Rd
MW-02	110 - 130	130	Magothy	Yes	Intersection of Bowling Green and Myron next to stop sign opposite 2436 Myron Rd
MW-03	130 - 150	150	Magothy	Yes	Intersection of Bowling Green and Myron next to stop sign opposite 2436 Myron Rd
MW-04	180 - 200	200	Magothy	Yes	Intersection of Bowling Green and Myron next to stop sign opposite 2436 Myron Rd
MW-05	90 - 110	110	Magothy	Yes	On Grand Blvd in front of 1052 Grand Blvd in the grass next to the tree
MW-06	110 - 130	130	Magothy	Yes	On Grand Blvd in front of 1052 Grand Blvd in the grass next to the tree
MW-07	90 - 110	110	Magothy	Yes	Front of school parking lot between sidewalk and road on Edgewood Drive
MW-08	120 - 140	140	Magothy	Yes	Front of school parking lot between sidewalk and road on Edgewood Drive
MW-09	310 - 315	315	Magothy	Yes	In front of 988 Bowling Green on the sidewalk
MW-10	275 - 285	285	Magothy	Yes	On the road in front of 1054 Bowling Green
MW-11D	275 - 285	285	Magothy	Yes	Opposite the rusted basketball Hoop
MW-11S	215 - 225	225	Magothy	Yes	Opposite the rusted basketball Hoop
MW-12	215 - 225	225	Magothy	Yes	In between 925 and 931 Stanford Court
MW-13	200 - 210	210	Magothy	Yes	
MW-14	185 - 205	205	Magothy	Yes	In front of 2685 Hyacinth St on the road
MW-15	185 - 205	205	Magothy	Yes	Behind the red shed
MW-16D	275 - 285	285	Magothy	Yes	
MW-16S	215 - 225	225	Magothy	Yes	
MW-17D	275 - 285	285	Magothy	Yes	
MW-17S	215 - 225	225	Magothy	Yes	
FSMW-03B	135 - 145	143	Magothy	Yes	In the parking lot, after 3 light poles from Frost Street
FSMW-05B	130 - 140	137	Magothy	Yes	on the entrance road of Toyota Dealership
FSMW-07B	136 - 146	145	Magothy	Yes	located in front of Valley National Bank, in a parking spot
FSMW-13A	69 - 79	79	UGA	Yes	
FSMW-13B	119 - 129	129	Magothy	Yes	
FSMW-13C	239 - 249	249	Magothy	Yes	
FSMW-14A	119 - 129	129	Magothy	Yes	On the curve of Hyacinth St between 2727 and 2726 Hyacinth St
FSMW-14B	159 - 169	169	Magothy	Yes	On the curve of Hyacinth St between 2727 and 2726 Hyacinth St
FSMW-14C	239 - 249	249	Magothy	Yes	On the curve of Hyacinth St between 2727 and 2726 Hyacinth St
N-11843	50 - 55	55	UGA	Yes	Manhole labeled "water"
N-11848	50 - 55	60	UGA	No	Could not locate
N-11849	50 - 55	60	UGA	No	Could not locate
N-11850	55 - 60	65	UGA	No	Could not locate
N-11851	55 - 60	65	UGA	Yes	
N-11852	90 - 95	100	Magothy	No	Could not locate
N-11854	50 - 55	55	UGA	No	Could not locate
N-11858	50 - 55	60	UGA	No	Could not locate
N-11859	50 - 55	60	UGA	Yes	
N-11861	50 - 55	60	UGA	No	Could not locate
N-11862	50 - 55	60	UGA	No	Lid stuck could not open. Well labeled as water.
N-02602		805	Magothy	Yes	Gauging performed by others
N-08497	456 - 539	539	Magothy	Yes	Gauging performed by others

Wells where depth to water measurement was not collected



Table 2  
Summary of Depth to Water Measurements

Well ID	Easting (NAD83)	Northing (NAD83)	Installed Well Depth (feet)	Measured Well Depth (feet)	Depth to Water (Feet)	Screen Depth (Feet)		Hydrologic Unit	Measuring Point Elevation (feet)	Groundwater Elevation (amsl)	Comments
						Top	Bottom				
<b>Upper Glacial Aquifer</b>											
FSMW-13A	1107432.23	214665.46	79	79.15	44.81	69	79	UGA	118	73.19	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
N-09938	1106265.87	215612.61	79.6	68.7	48.95	72	77	UGA	123.88	74.925	Location and elevation from USGS website
N-10319	1104729.89	215083.96	57	63.65	47.09	47	57	UGA	120.88	73.785	Location and elevation from USGS website
N-10328 (NC-11)	1106100.66	214615.14	58	64.85	43.84	48	58	UGA	118.23	74.39	Location and elevation from USGS website
N-11843	1104805.85	215286.76	55	58.35	46.93	50	55	UGA	120.88	73.945	Location and elevation from USGS website
N-11851	1104810.85	214274.73	65	62.5	45.06	55	60	UGA	117.88	72.815	Location and elevation from USGS website
N-11859	1104351.59	213766.46	60	60.15	42.44	50	55	UGA	114.88	72.435	Location and elevation from USGS website
<b>Magothy</b>											
EW-1B	1106606.83	214139.02	164	157.55	41.73	154	164	Magothy	113.84	72.11	Location and elevation from OU1 RD Pre-Design Work Plan
EW-1C	1106591.29	214133.38	516	515.05	41.89	506	516	Magothy	113.99	72.1	Location and elevation from OU1 RD Pre-Design Work Plan
EW-2B	1105922.15	214176.02	142	131.1	42.43	132	142	Magothy	114.88	72.45	Location and elevation from OU1 RD Pre-Design Work Plan
EX-1	1107322.85	213894.38	205	204.5	35.49	185	205	Magothy	107.71	72.22	Location and elevation from OU1 RD Pre-Design Work Plan
EX-2	1103835.27	212587.22	285	285.25	35.87	265	285	Magothy	105.47	69.6	Location and elevation from OU1 RD Pre-Design Work Plan
FSMW-03B	1107776.14	215785.17	143	145	51.6	135	145	Magothy	126.23	74.63	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-05B	1107837.77	215030.61	137	137.7	44.02	130	140	Magothy	117.99	73.97	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-07B	1107063.15	214816.77	145	146.1	48.13	136	146	Magothy	121.44	73.31	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-13B	1107433.80	214659.28	129	128.8	44.75	119	129	Magothy	117.94	73.19	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-13C	1107436.15	214651.61	249	249.3	44.83	239	249	Magothy	117.81	72.98	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-14A	1107262.83	214580.13	129	129.35	44.04	119	129	Magothy	117.16	73.12	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-14B	1107256.69	214582.56	169	165.7	44.4	159	169	Magothy	117.36	72.96	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
FSMW-14C	1107249.01	214584.35	249	251.2	44.2	239	249	Magothy	117.19	72.99	Location and elevation from 2019 Groundwater Monitoring for Frost Street Sites
MW-01	1105300.86	213450.19	110	109.75	42.15	90	110	Magothy	113.67	71.52	Location and elevation from OU1 RD Pre-Design Work Plan
MW-02	1105304.62	213453.60	130	128.42	42.19	110	130	Magothy	113.69	71.5	Location and elevation from OU1 RD Pre-Design Work Plan
MW-03	1105296.00	213451.20	150	149.92	42.1	130	150	Magothy	113.67	71.57	Location and elevation from OU1 RD Pre-Design Work Plan
MW-04	1105299.00	213460.70	200	198.8	42.42	180	200	Magothy	113.76	71.34	Location and elevation from OU1 RD Pre-Design Work Plan
MW-05	1105650.97	213806.40	110	109.7	43.73	90	110	Magothy	115.64	71.91	Location and elevation from OU1 RD Pre-Design Work Plan
MW-06	1105653.58	213802.99	130	128.07	43.78	110	130	Magothy	115.7	71.92	Location and elevation from OU1 RD Pre-Design Work Plan
MW-07	1104331.50	211946.79	110	109.2	36.72	90	110	Magothy	105.92	69.2	Location and elevation from OU1 RD Pre-Design Work Plan
MW-08	1104337.36	211947.25	140	138.9	36.84	120	140	Magothy	105.85	69.01	Location and elevation from OU1 RD Pre-Design Work Plan
MW-09	1105703.40	212954.47	315	315.35	39.31	310	315	Magothy	109.94	70.63	Location and elevation from OU1 RD Pre-Design Work Plan
MW-10	1105233.35	213449.23	285	283.25	41.93	275	285	Magothy	113.05	71.12	Location and elevation from OU1 RD Pre-Design Work Plan
MW-11D	1104018.49	212056.64	285	284.6	38.13	275	285	Magothy	106.96	68.83	Location and elevation from OU1 RD Pre-Design Work Plan
MW-11S	1104018.49	212056.64	225	224.65	37.99	215	225	Magothy	106.96	68.97	Location and elevation from OU1 RD Pre-Design Work Plan
MW-12	1103100.39	212461.12	225	224.45	35.6	215	225	Magothy	104.7	69.1	Location and elevation from OU1 RD Pre-Design Work Plan
MW-13	1103498.73	211667.02	210	208.5	36.98	200	210	Magothy	105.26	68.28	Location and elevation from OU1 RD Pre-Design Work Plan
MW-14	1107347.51	214120.66	205	200.35	39.36	185	205	Magothy	111.85	72.49	Location and elevation from OU1 RD Pre-Design Work Plan
MW-15	1106780.90	213749.98	205	204.4	39.07	185	205	Magothy	111.03	71.96	Location and elevation from OU1 RD Pre-Design Work Plan
MW-16D	1106226.97	213313.45	285	285.55	37.83	275	285	Magothy	109.07	71.24	Location and elevation from OU1 RD Pre-Design Work Plan
MW-16S	1106226.97	213313.45	225	225.35	37.7	215	225	Magothy	109.04	71.34	Location and elevation from OU1 RD Pre-Design Work Plan
MW-17D	1107304.77	213282.84	285	287.8	42.55	275	285	Magothy	113.87	71.32	Location and elevation from OU1 RD Pre-Design Work Plan
MW-17S	1107304.77	213282.84	225	227.7	42.48	215	225	Magothy	113.9	71.42	Location and elevation from OU1 RD Pre-Design Work Plan
N-02602	1101837.59	214627.43	805	63	unknown	unknown	unknown	Magothy	114.88	51.875	Location and elevation from USGS website
N-08497	1101884.37	214665.22	539	50	456	539	539	Magothy	114.88	64.875	Location and elevation from USGS website
N-10478	1103353.06	213356.73	121	116.35	39.88	101	121	Magothy	110.88	70.995	Location and elevation from USGS website
OU3-B1S	1103576.80	210067.48	390	390.1	21.73	380	390	Magothy	87.25	65.52	Location and elevation from EPA OU3 investigation data
OU3-B2S	1105237.59	210946.78	272.5	272.7	32.39	262.5	272.5	Magothy	100.17	67.78	Location and elevation from EPA OU3 investigation data
OU3-B3S	1106996.37	211886.03	385	384.4	39.8	375	385	Magothy	109.30	69.5	Location and elevation from EPA OU3 investigation data



Table 3  
Summary of Water Levels at Cluster Wells

Well ID	Easting (NAD83)	Northing (NAD83)	Well Depth (feet)	Depth to Water (Feet)	Screen Depth (Feet)		Hydrologic Unit	Groundwater Elevation (amsl)	Difference in Groundwater Elevation <sup>1</sup> (amsl)	Difference in Well Depth (ft bgs)	Vertical Gradient (ft/ft)	
					Top	Bottom						
EW-1B	1106606.83	214139.02	164	41.73	154	164	Magothy	72.11	0.01	352	2.84E-05	
EW-1C	1106591.29	214133.38	516	41.89	506	516	Magothy	72.1				
FSMW-13A	1107432.23	214665.46	79	44.81	69	79	UGA	73.19	0	50	0.00E+00	
FSMW-13B	1107433.80	214659.28	129	44.75	119	129	Magothy	73.19		0.21	120	1.75E-03
FSMW-13C	1107436.15	214651.61	249	44.83	239	249	Magothy	72.98				
FSMW-14A	1107262.83	214580.13	129	44.04	119	129	Magothy	73.12	0.16	40	4.00E-03	
FSMW-14B	1107256.69	214582.56	169	44.4	159	169	Magothy	72.96		-0.03	80	-3.75E-04
FSMW-14C	1107249.01	214584.35	249	44.2	239	249	Magothy	72.99				
MW-01	1105300.86	213450.19	110	42.15	90	110	Magothy	71.52	0.02	20	1.00E-03	
MW-02	1105304.62	213453.60	130	42.19	110	130	Magothy	71.5		-0.07	20	-3.50E-03
MW-03	1105296.00	213451.20	150	42.1	130	150	Magothy	71.57	0.23	50	4.60E-03	
MW-04	1105299.00	213460.70	200	42.42	180	200	Magothy	71.34				
MW-10	1105233.35	213449.23	285	41.93	275	285	Magothy	71.12	0.22	100	2.20E-03	
MW-05	1105650.97	213806.40	110	43.73	90	110	Magothy	71.91		-0.01	20	-5.00E-04
MW-06	1105653.58	213802.99	130	43.78	110	130	Magothy	71.92				
MW-07	1104331.50	211946.79	110	36.72	90	110	Magothy	69.2	0.19	30	6.33E-03	
MW-08	1104337.36	211947.25	140	36.84	120	140	Magothy	69.01				
MW-11S	1104018.49	212056.64	225	37.99	215	225	Magothy	68.97	0.14	60	2.33E-03	
MW-11D	1104018.49	212056.64	285	38.13	275	285	Magothy	68.83				
MW-16S	1106226.97	213313.45	225	37.7	215	225	Magothy	71.34	0.1	60	1.67E-03	
MW-16D	1106226.97	213313.45	285	37.83	275	285	Magothy	71.24				
MW-17S	1107304.77	213282.84	225	42.48	215	225	Magothy	71.42	0.1	60	1.67E-03	
MW-17D	1107304.77	213282.84	285	42.55	275	285	Magothy	71.32				

Notes:

1. Negative value indicates groundwater flows upward.

**Table 4**  
Groundwater Sampling Results

			Location ID Sample ID Sample Date Sample Type	EW-1B EW-1C EW-1C-20191126 11/26/2019 N	EW-1C EW-1C-20191126 11/26/2019 N	EW-2B EW-2B-20191203 12/3/2019 N	EX-1 EX-1-20191210 12/10/2019 N	EX-2 EX-2-20191204 12/4/2019 N	FSMW-13B FSMW-13B-20191202 12/2/2019 N	FSMW-13C FSMW-13C-20191202 12/2/2019 N	FSMW-13C FSMW-13C-20191202-1 12/2/2019 FD	FSMW-14C FSMW-14C-20191202 12/2/2019 N	MW-1 MW-1-20191125 11/25/2019 N	MW-10 MW-10-20191205 12/5/2019 N					
Analyte	Cas No.	ROD Cleanup Criteria (ug/l)	NYSDEC GW Criteria (ug/l) <sup>1</sup>	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.	Result (ug/l)	Qual.
1,1,1-Trichloroethane	71-55-6	<b>5</b>		0.35J		0.5U		0.12J		0.5U		0.79		0.5U		1.3		0.17J	
1,1,2,2-Tetrachloroethane	79-34-5	NA	5	0.5U		0.5U		0.2U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NA	<b>5</b>	0.5U		0.5U		0.6U		0.5U		0.39J		0.5U		0.93		0.5U	
1,1-Dichloroethane	79-09-5	1		0.49J		0.45J		0.24J		0.5U		0.28J		0.5U		0.5U		0.5U	
1,1-Dichloroethane	75-34-3	<b>5</b>		1.7		0.5U		0.5U		0.5U		2.2		0.5U		0.91		0.19J	
1,1-Dichloroethene	75-35-4	<b>5</b>		1		0.5U		0.5U		0.5U		3.7		0.5U		<b>10</b>		0.89	
1,2,2-Trichloroethane	87-61-6	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,2,4-Trichlorobenzene	120-82-1	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,2-Dibromo-3-Chloropropane	96-12-8	NA	0.04	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,2-Dibromoethane	106-93-4	NA	<b>0.0006</b>	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,2-Dibromobenzene	95-50-1	NA	3	0.5U		0.5U		0.5U		0.5U		0.11J		0.5U		0.5U		0.5U	
1,2-Dichloroethane	107-06-2	NA	<b>6</b>	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.33J	
1,2-Dichloropropane	78-87-5	NA	1	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,3-Dichlorobenzene	541-73-1	NA	3	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
1,4-Dichlorobenzene	106-46-7	NA	3	0.5U		0.5U		0.5U		0.5U		0.12J		0.5U		0.5U		0.5U	
2-Butanone	78-93-3	NA	50	5U		5U		5U		5U		5U		5U		5U		5U	
2-Hexanone	591-78-6	NA	50	5U		5U		5U		5U		5U		5U		5U		5U	
4-Methyl-2-Pentanone	108-10-1	NA		5U		5U		5U		5U		5U		5U		5U		5U	
Acetone	67-64-1	NA	50	5U		5U		5U		5U		5U		5U		5U		5U	
Benzene	71-43-2	NA	<b>1</b>	0.5U		0.5U		0.5U		0.5U		0.17J		0.5U		0.5U		0.5U	
Bromochloromethane	74-97-5	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Bromodichloromethane	75-27-4	NA	50	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Bromoform	75-25-2	NA	50	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Bromomethane	74-83-9	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Carbon Disulfide	75-15-0	NA	60	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.07J	
Carbon Tetrachloride	56-23-5	NA	5	0.5U		0.29J		0.5U		0.5U		0.5U		4.4		4.3		0.95	
Chlorobenzene	108-90-7	NA	5	0.5U		0.5U		0.5U		0.5U		0.12J		0.5U		0.5U		0.5U	
Chloroethane	75-00-3	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Chloroform	67-66-3	<b>7</b>		0.87		0.5U		0.55		0.5U		0.58		0.5U		6.2		0.91	
Chloromethane	74-87-3	NA	5	0.5U		0.5U		0.5U		0.5U		0.11J		0.5U		0.5U		0.5U	
cis-1,2-Dichloroethylene	156-59-2	<b>5</b>		2.2		<b>8.3J</b>		0.8		1		<b>17</b>		0.69		<b>34</b>		<b>32</b>	
cis-1,3-Dichloropropene	10061-01-5	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		<b>54</b>	
Cyclohexane	110-82-7	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Dibromochloromethane	124-48-1	NA	50	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Dichlorodifluoromethane	75-71-8	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Ethylbenzene	100-41-4	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Isopropylbenzene	98-82-8	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
M, P Xylenes	179601-23-1	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Methyl Acetate	79-20-9	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Methyl tert-Butyl Ether	1634-04-4	NA	10	0.21J		0.5U		0.5U		0.5U		2.6		0.5U		1.2		0.19J	
Methylcyclohexane	108-87-2	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Methylene Chloride	75-09-2	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
o-Xylene	95-47-6	NA	5	0.5U		0.5U		0.5U		0.5U		0.11J		0.5U		0.5U		0.5U	
Styrene	100-42-5	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Tetrachlorethylene (PCE)	127-18-4	<b>5</b>	<b>38</b>	0.18J		2.7		<b>47</b>		<b>260</b>		<b>26</b>		<b>45</b>		<b>44</b>		<b>5.4</b>	
Toluene	108-88-3	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
trans-1,2-Dichloroethene	156-60-5	NA	5	0.5U		0.5U		0.5U		0.5U		0.5U		0.26J		0.25J		0.5U	
trans-1,3-Dichloropropene	103-02-6	NA		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	
Trichloroethene (TCE)	19-01-6	<b>5</b>	<b>5.8</b>	<b>33</b>		<b>5.9</b>		2.3		<b>220</b>		1.1		<b>200</b>		<b>190</b>		<b>20</b>	
Trichlorofluoromethane	75-69-4	NA	<b>5</b>	0.5U		0.5U		0.5U		0.5U		0.18J		0.5U		0.12J		0.5U	
Vinyl Chloride	75-01-4	NA	2	0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U		0.5U	

Notes:

1. NYSDEC Groundwater Standards are provided for only those contaminants that are not identified as a COC in the ROD and therefore do not have any cleanup standard listed in the ROD.

**Criteria was exceeded**

U - Nondetect

J - Estimated

J+ - potential bias high

J- - potential bias low

FD - field duplicate

N - normal

COC - Contaminant of Concern

ROD - Record of Decision

NA - Not Applicable

GW - Groundwater

Qual. - Qualifiable

**Table 4**  
Groundwater Sampling Results

		Location ID Sample ID Sample Date Sample Type	MW-11D MW-11D-20191204 12/4/2019 N	MW-11S MW-11S-20191204 12/4/2019 N	MW-12 MW-12-20191210 12/10/2019 N	MW-13 MW-13-20191204 12/4/2019 N	MW-14 MW-14-20191126 11/26/2019 N	MW-15 MW-15-20191209 12/9/2019 N	MW-15 MW-15-20191209-1 12/9/2019 FD	MW-16D MW-16D-20191203 12/3/2019 N	MW-16S MW-16S-20191203 12/3/2019 N	MW-17D MW-17D-20191209 12/9/2019 N	MW-17S MW-17S-20191209 12/9/2019 N		
Analyte	Cas No.	ROD Cleanup Criteria (ug/l)	NYDEC GW Criteria (ug/l) <sup>1</sup>	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.		
1,1,1-Trichloroethane	71-55-6	<b>5</b>	<b>8</b>	3.6		0.44J	0.31J	5 U	0.5 U	0.5 U	<b>5.6</b>	0.5 U	200U	0.5 U	
1,1,2,2-Tetrachloroethane	79-34-5	NA	5	0.5 U		0.3 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NA	<b>5</b>	<b>15</b>	<b>9.5</b>	0.5 U	0.19J	5 U	0.5 U	0.5 U	1 U	0.5 U	200U	0.5 U	
1,1-Dichloroethane	79-09-5	1		0.1		0.72 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,1-Dichloroethane	75-34-3	<b>5</b>		<b>15</b>	4.1	0.5 U	1.8	5 U	0.5 U	0.5 U	4.2	0.5 U	200U	0.5 U	
1,1-Dichloroethene	75-35-5	<b>5</b>		<b>34</b>	<b>21J+J</b>	1.4	0.5 U	5 U	0.5 U	0.5 U	<b>18J+J</b>	0.5 U	200U	0.5 U	
1,2,2-Trichlorobenzene	87-61-6	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,2,4-Trichlorobenzene	120-82-1	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,2-Dibromo-3-Chloropropane	96-12-8	NA	0.04	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,2-Dibromoethane	106-93-4	NA	<b>0.0006</b>	0.5 U		0.5 U	<b>0.19J</b>	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,2-Dichlorobenzene	95-50-1	NA	3	0.26J		0.1 J	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,2-Dichloroethane	107-06-2	NA	<b>0.6</b>	<b>1.2</b>		0.36J	0.5 U	<b>1.1</b>	5 U	0.5 U	0.5 U	0.14J	0.5 U	200U	0.5 U
1,2-Dichloropropane	78-87-5	NA	1	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,3-Dichlorobenzene	541-73-1	NA	3	0.5 U		0.06J	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
1,4-Dichlorobenzene	106-46-7	NA	3	0.55		0.12J	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
2-Butanone	78-93-3	NA	50	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	2000U	5 U	
2-Hexanone	591-78-6	NA	50	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	2000U	5 U	
4-Methyl-2-Pentanone	108-10-1	NA		5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	2000U	5 U	
Acetone	67-64-1	NA	50	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	2000U	5 U	
Benzene	71-43-2	NA	<b>1</b>	<b>4.1</b>		0.18J	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Bromochloromethane	74-97-5	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Bromodichloromethane	75-27-4	NA	50	0.06J		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Bromoform	75-25-2	NA	50	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Bromomethane	74-83-9	NA	5	0.5 U		0.11J	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Carbon Disulfide	75-15-0	NA	60	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Carbon Tetrachloride	56-23-5	NA	5	1.3		0.12J	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Chlorobenzene	108-90-7	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Chloroethane	75-00-3	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Chloroform	67-66-3	<b>7</b>		<b>7.2</b>		0.95	0.5 U	0.93	5 U	0.5 U	0.5 U	0.61	200U	0.5 U	
Chloromethane	74-87-3	NA	5	0.16J		0.24J	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
cis-1,2-Dichloroethylene	156-59-2	<b>5</b>		<b>160</b>	<b>35</b>	4.1	0.95	5 U	0.5 U	0.5 U	<b>23</b>	0.5 U	<b>950</b>	0.5 U	
cis-1,3-Dichloropropene	10061-01-5	NA		0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Cyclohexane	110-82-7	NA		0.14J		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Dibromochloromethane	124-48-1	NA	50	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Dichlorodifluoromethane	75-71-8	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Ethylbenzene	100-41-4	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Isopropylbenzene	98-82-8	NA	5	0.13J		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
M, P Xylenes	179601-23-1	NA		0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Methyl Acetate	79-20-9	NA		0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Methyl tert-Butyl Ether	1634-04-4	NA	10	0.13J		3	0.48J	0.42J	5 U	0.5 U	0.5 U	0.9	200U	0.5 U	
Methylcyclohexane	108-87-2	NA		0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Methylene Chloride	75-09-2	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
o-Xylene	95-47-6	NA	5	1.2J		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Styrene	100-42-5	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Tetrachlorethylene (PCE)	127-18-4	<b>5</b>		<b>1100</b>	<b>1200</b>	<b>28</b>	<b>29</b>	<b>160</b>	0.62	0.54	<b>120</b>	0.5 U	<b>7000</b>	0.9	
Toluene	108-88-3	NA	5	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
trans-1,2-Dichloroethene	156-60-5	NA	5	0.64J+		0.23J+	1	0.5 U	0.5 U	0.5 U	0.31J+	0.5 U	200U	0.5 U	
trans-1,3-Dichloropropene	10061-02-6	NA		0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Trichloroethene (TCE)	19-01-6	<b>5</b>		<b>730</b>	<b>220</b>	<b>19</b>	<b>24</b>	<b>9.9</b>	0.5 U	0.5 U	<b>53</b>	0.5 U	<b>900</b>	0.5 U	
Trichlorofluoromethane	75-69-4	NA	<b>5</b>	<b>111</b>		0.32J	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	
Vinyl Chloride	75-01-4	NA	2	0.5 U		0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	200U	0.5 U	

**Criteria was exceeded**

U - Nondetect

J - Estimated

J+ - potential bias high

J- - potential bias low

FD - field duplicate

N - normal

COC - Contaminant of Concern

ROD - Record of Decision

NA - Not Applicable

GW - Groundwater

Qual - Qualified



Table 4  
Groundwater Sampling Results

		Location ID Sample ID Sample Date Sample Type	MW-2 MW-2-20191125 11/25/2019 N	MW-3 MW-3-20191125 11/25/2019 N	MW-4 MW-4-20191125 11/25/2019 N	MW-5 MW-5-20191205 12/5/2019 N	MW-6 MW-6-20191205 12/5/2019 N	MW-7 MW-7-20191206 12/6/2019 N	MW-8 MW-8-20191206 12/6/2019 N	MW-9 MW-9-20191203 12/3/2019 N
Analyte	Cas No.	ROD Cleanup Criteria (ug/l)	NYSDEC GW Criteria (ug/l) <sup>1</sup>	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.	Result (ug/l) Qual.
1,1,1-Trichloroethane	71-55-6	5	5.4	2 J	18	0.12 J	2.8	0.5 U	0.5 U	7.5
1,1,2,2-Tetrachloroethane	79-34-5	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	NA	5	0.6 J	0.6	0.2 J	0.5	0.33 J	0.5 U	2 J
1,1-Dichloroethane	79-09-5	1	0.1 U	0.5	0.24 J	0.3 U	0.16 U	0.5 U	0.5 U	0.16 J
1,1-Dichloroethene	75-34-3	5	13	38	31	0.8 J	12	0.11 J	0.26 J	3.3
1,1-Dichloroethene	75-35-4	5	35	81	62	0.8 U	27	0.5 U	0.5 U	18
1,2,2-Trichloroethane	87-61-6	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	120-82-1	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	NA	0.04	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane	106-93-4	NA	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	95-50-1	NA	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	107-06-2	NA	0.6	0.21 J	1.2	0.56	0.5 U	0.3 J	0.5 U	0.33 J
1,2-Dichloropropane	78-87-5	NA	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	541-73-1	NA	3	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	106-46-7	NA	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	78-93-3	NA	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	591-78-6	NA	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	108-10-1	NA		5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	67-64-1	NA	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	71-43-2	NA	1	0.5 U	0.17 J	0.5 U				
Bromochloromethane	74-97-5	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	75-27-4	NA	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	75-25-2	NA	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	74-83-9	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Disulfide	75-15-0	NA	60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	56-23-5	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.11 J	0.5 U	0.1 J
Chlorobenzene	108-90-7	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	75-00-3	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	67-66-3	7		1.5 J	0.81 J	0.92 J	0.96	0.65	0.5 U	0.5 U
Chloromethane	74-87-3	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethylene	156-59-2	5	19	9.5 J+	11 J+	0.12 J	6.5 J+	0.93	0.5 U	12 J+
cis-1,3-Dichloropropene	10061-01-5	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	110-82-7	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	124-48-1	NA	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	75-71-8	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.13 J	0.5 U
Ethylbenzene	100-41-4	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene	98-82-8	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M, P Xylenes	179601-23-1	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl Acetate	79-20-9	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl tert-Butyl Ether	1634-04-4	NA	10	0.88	0.5 U	2	0.5 U	0.28 J	0.18 J	0.55
Methylcyclohexane	108-87-2	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	75-09-2	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	95-47-6	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	100-42-5	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachlorethylene (PCE)	127-18-4	5	30 J-	14	31	0.68	11	0.78	0.26 J	29
Toluene	108-88-3	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	156-60-5	NA	5	0.23 J	0.22 J	1	0.5 U	0.5 U	0.5 U	0.13 J+
trans-1,3-Dichloropropene	10061-02-6	NA		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	19-01-6	5		61 J-	110	76	1.3	86	0.27 J	0.18 J
Trichlorofluoromethane	75-69-4	NA	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Chloride	75-01-4	NA	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:

1. NYSDEC Groundwater Standards are provided for only those contaminants that are not identified as a COC in the ROD and therefore do not have any cleanup standard listed in the ROD.

**Criteria was exceeded**

J - Nondetect

J+ - Estimated

J- - potential bias high

FD - field duplicate

N - normal

COC - Contaminant of Concern

ROD - Record of Decision

NA - Not Applicable

GW - Groundwater

Qual. - Qualified

# Appendix A

## Water Level Gauging Field Records

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-07B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 1065/1085 Old Country Rd, Westbury

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>143</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>145</u>	<i>fttoc</i>	
Screened interval:	<u>135-145</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>51.6</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  located in front of valley national bank, in a parking spot		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
located in front of valley national bank, in a parking spot		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-10328 (NC-11)  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): New York Avenue/Old Country Road

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>58</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>64.85</u>	<i>fttoc</i>	
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>43.84</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Next to the one way sign, shallow well marked

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-09938  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): State Street

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>79.6</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>68.7</u>	<i>fttoc</i>	
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>48.95</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Manhole labeled as water, In front of Building 1, State Street

*Inspected by:* Jiss Philip, David Avudzega  
*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-03B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 89 Frost Street, Westbury

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>145</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>143</u>	<i>fttoc</i>	
Screened interval:	<u>135-145</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>51.6</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
In the parking lot, after 3 light poles from frost street		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-05B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 1137 Old Country Rd, Westbury

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>137</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>137.7</u>	<i>fttoc</i>	
Screened interval:	<u>130-140</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.02</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

On the entrance road of Toyota car dealership

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*Inspected by:* Jiss Philip, David Avudzega  
*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-11843  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Main Street/Swalm Street

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>55</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>58.35</u>	<i>fttoc</i>	
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>46.93</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	Yes	No
Is the well surface casing in good condition?	Yes	Yes	No
Is the surface casing vertical?	Yes	Yes	No
Is there an internal well seal?	Yes	Yes	No
Has there been physical damage to the well?	Yes	Yes	No
Does sounding depth match completed depth?	Yes	Yes	No
Is measuring point marked?	Yes	Yes	No
Is the well clearly labeled?	Yes	Yes	No
Flush mount - Is it secure from runoff?	Yes	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

In between two building left side of street, manhole says water

*Inspected by:* Jiss Philip, David Avudzega  
*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-10319  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 558 Main Street, Westbury

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>4</u>	<i>inches</i>	
Well Depth (as installed):	<u>57</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>63.65</u>	<i>fttoc</i>	
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>47.09</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Located inside Fence, EPA had to call the lawyer and then the building owner came out and gave access		
<i>Inspected by:</i> Jiss Philip, David Avudzega		
<i>Date of Inspection:</i> 11/20/2019		
<i>Reviewed by:</i> _____ <b>(Print)</b>		
_____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EW-1B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Flower Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>164</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>157.55</u>	<i>fttoc</i>	
Screened interval:	<u>154-164</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>41.73</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
In the middle of the Flower Street between Hyacinth St and Iris Place		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EW-1B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Flower Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>4</u>	<i>inches</i>	
Well Depth (as installed):	<u>516</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>515.05</u>	<i>fttoc</i>	
Screened interval:	<u>506-516</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>41.89</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

In the middle of the Flower Street between Hyacinth St and Iris Place

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ **(Print)**  
\_\_\_\_\_  
**(Sign)**

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-14A  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Hyacinth Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>129</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>129.35</u>	<i>fttoc</i>	
Screened interval:	<u>119-129</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.04</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On the cruve of Hyacinth st between 2727 and 2726 Hyacinth St		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-14B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Hyacinth Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>169</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>165.7</u>	<i>fttoc</i>	
Screened interval:	<u>159-169</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.4</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On the cruve of Hyacinth st between 2727 and 2726 Hyacinth St		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-14C  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Hyacinth Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>249</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>251.2</u>	<i>fttoc</i>	
Screened interval:	<u>239-249</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.2</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On the cruve of Hyacinth st between 2727 and 2726 Hyacinth St		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EW-2B  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7537	
Longitude	-73.5608	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Astor Place North

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>Steel</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>4</u>	<u>inches</u>	
Well Diameter:	<u>2</u>	<u>inches</u>	
Well Depth (as installed):	<u>142</u>	<u>ftbgs</u>	
Well Depth (as measured):	<u>131.1</u>	<u>fttoc</u>	
Screened interval:	<u>132-142</u>	<u>ft</u>	
Open hole interval:	<u> </u>	<u>ft</u>	
Depth to water:	<u>42.43</u>	<u>ftbtoc</u>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

On the Road in front of 2531 and 2535 Astor Place

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EW-2C  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7537	
Longitude	-73.5608	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Astor Place North

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>Steel</u>		
Well casing material:	<u>Unknown</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>4</u>	<i>inches</i>	
Well Depth (as installed):	<u>ftbgs</u>		
Well Depth (as measured):	<u>fttoc</u>		
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>ftbtoc</u>		
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

On the Road in front of 2531 and 2535 Astor Place, Metal on Metal rusted well, Could not open well cap

*Inspected by:* Jiss Philip, David Avudzega  
*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ **(Print)**  
 \_\_\_\_\_ **(Sign)**

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-04  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7517	
Longitude	-73.5631	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Myron

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="checkbox"/> Flush Mount	<input type="checkbox"/> Stick up	<input type="checkbox"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<u>inches</u>	
Well Diameter:	<u>4</u>	<u>inches</u>	
Well Depth (as installed):	<u>200</u>	<u>ftbgs</u>	
Well Depth (as measured):	<u>198.8</u>	<u>fttoc</u>	
Screened interval:	<u>180-200</u>	<u>ft</u>	
Open hole interval:		<u>ft</u>	
Depth to water:	<u>42.22</u>	<u>ftbtoc</u>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

## Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

### Other Comments:

## Recommendations

Well needs to be redeveloped.	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

## Comments

Cross Section of Bowling green and Myron next to stop sign opposite 2436 Myron Rd

**Inspected by:** Jiss Philip, David Avudzega

**Date of Inspection:** 11/20/2019

**Reviewed by:**

(Print)

(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-02  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7517	
Longitude	-73.5631	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Myron

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="checkbox"/> Flush Mount	<input type="checkbox"/> Stick up	<input type="checkbox"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<u>inches</u>	
Well Diameter:	<u>2</u>	<u>inches</u>	
Well Depth (as installed):	<u>130</u>	<u>ftbgs</u>	
Well Depth (as measured):	<u>128.42</u>	<u>fttoc</u>	
Screened interval:	<u>110-130</u>	<u>ft</u>	
Open hole interval:		<u>ft</u>	
Depth to water:	<u>42.19</u>	<u>ftbtoc</u>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

## **Well Condition**

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

## **Recommendations**

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

## Comments

Cross Section of Bowling green and Myron next to stop sign opposite 2436 Myron Rd

**Inspected by:** Jiss Philip, David Avudzega

**Date of Inspection:** 11/20/2019

***Reviewed by:***

(Print)

(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-01  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7517	
Longitude	-73.5631	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Myron

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<u>inches</u>	
Well Diameter:	<u>2</u>	<u>inches</u>	
Well Depth (as installed):	<u>110</u>	<u>ftbgs</u>	
Well Depth (as measured):	<u>109.75</u>	<u>fttoc</u>	
Screened interval:	<u>90-110</u>	<u>ft</u>	
Open hole interval:		<u>ft</u>	
Depth to water:	<u>42.15</u>	<u>ftbtoc</u>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist

## Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

## **Recommendations**

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

## Comments

Cross Section of Bowling green and Myron next to stop sign opposite 2436 Myron Rd

**Inspected by:** Jiss Philip, David Avudzega

**Date of Inspection:** 11/20/2019

***Reviewed by:***

(Print)

(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-03  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7517	
Longitude	-73.5631	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Myron

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>150</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>149.92</u>	<i>fttoc</i>	
Screened interval:	<u>130-150</u>	<i>ft</i>	
Open hole interval:		<i>ft</i>	
Depth to water:	<u>42.1</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

## Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

### Other Comments:

## Recommendations

Well needs to be redeveloped.	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

## Comments

Cross Section of Bowling green and Myron next to stop sign opposite 2436 Myron Rd

**Inspected by:** Jiss Philip, David Avudzega

**Date of Inspection:** 11/20/2019

**Reviewed by:**

(Print)

(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-10  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7517	
Longitude	-73.5633	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Bowling green drive

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	N/A		
Well casing material:	PVC		
Surface Casing diameter:	6	inches	
Well Diameter:	2	inches	
Well Depth (as installed):	285	ft <b>bg</b> s	
Well Depth (as measured):	283.25	ft <b>toc</b>	
Screened interval:	275-285	ft	
Open hole interval:		ft	
Depth to water:	41.93	ft <b>b</b> <b>toc</b>	
Date:	11/20/2019		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On the road in front of 1054 Bowling green, Labeled as water missing well plug		
<i>Inspected by:</i> Jiss Philip, David Avudzega		
<i>Date of Inspection:</i> 11/20/2019		
<i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-09  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7504	
Longitude	-73.5617	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 988 Bowling Green Drive

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	N/A		
Well casing material:	PVC		
Surface Casing diameter:	6	inches	
Well Diameter:	2	inches	
Well Depth (as installed):	315	ft <b>bgs</b>	
Well Depth (as measured):	315.35	ft <b>toc</b>	
Screened interval:	305-315	ft	
Open hole interval:		ft	
Depth to water:	39.31	ft <b>boc</b>	
Date:	11/20/2019	Time:	730

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

In front of 988 Bowling green on the sidewalk

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-06  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7527	
Longitude	-73.5618	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Grant Blvd

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>130</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>128.07</u>	<i>fttoc</i>	
Screened interval:	<u>110-130</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>43.78</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On grant Blvd in front of 1052 grand blvd in the grass next to the tree		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-05  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7527	
Longitude	-73.5618	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Grant Blvd

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>110</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>109.7</u>	<i>fttoc</i>	
Screened interval:	<u>90-110</u>	<i>ft</i>	
Open hole interval:	<u> </u>	<i>ft</i>	
Depth to water:	<u>43.73</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
On grant Blvd in front of 1052 grand blvd in the grass next to the tree		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-07  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7476	
Longitude	-73.5666	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Edgewood Drive

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>110</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>109.2</u>	<i>fttoc</i>	
Screened interval:	<u>90-110</u>	<i>ft</i>	
Open hole interval:	<u> </u>	<i>ft</i>	
Depth to water:	<u>36.72</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Front of school parking lot between sidewalk and road on edgewood drive		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-08  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7476	
Longitude	-73.5666	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Edgewood Drive

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	N/A		
Well casing material:	PVC		
Surface Casing diameter:	6	inches	
Well Diameter:	2	inches	
Well Depth (as installed):	140	ft <b>bgs</b>	
Well Depth (as measured):	138.9	ft <b>toc</b>	
Screened interval:	120-140	ft	
Open hole interval:		ft	
Depth to water:	36.84	ft <b>btoc</b>	
Date:	11/20/2019		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Front of school parking lot between sidewalk and road on edgewood drive		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EX-2  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7494	
Longitude	-73.5684	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Sheldon Dr

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>8</u>	<i>inches</i>	
Well Diameter:	<u>6</u>	<i>inches</i>	
Well Depth (as installed):	<u>285</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>285.25</u>	<i>fttoc</i>	
Screened interval:	<u>265-285</u>	<i>ft</i>	
Open hole interval:	<u>265-285</u>	<i>ft</i>	
Depth to water:	<u>35.87</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

In the Road on Sheldon Dr

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/20/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: OU3-B1S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 693 The Plain Road

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>390</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>390.1</u>	<i>fttoc</i>	
Screened interval:	<u>380-390</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>21.73</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Between Road and Sidewalk		
<i>Inspected by:</i> Jiss Philip, David Avudzega		
<i>Date of Inspection:</i> 11/20/2019		
<i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: OU3-B2S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Plum Tree Road East

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>272.5</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>272.7</u>	<i>fttoc</i>	
Screened interval:	<u>264.5-272.5</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>32.39</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Across from 872 Plum Tree Road East, side yard of 2255 Elderberry Drive, Westbury		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: OU3-B3S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 825 Merillon Ave

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>385</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>384.4</u>	<i>fttoc</i>	
Screened interval:	<u>375-385</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>39.8</u>	<i>ftbtoc</i>	
Date:	<u>11/20/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
In front of the house on the road		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/20/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-15  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7525	
Longitude	-73.5577	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Recharge Basin #51

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>205</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>204.4</u>	<i>fttoc</i>	
Screened interval:	<u>185-205</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>39.07</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  behind 2618 hyacinth St, Westbury, parrellel to the red shed		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
behind 2618 hyacinth St, Westbury, parrellel to the red shed		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-17S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7512	
Longitude	-73.5559	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Recharge Basin #51

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input type="checkbox"/> Flush Mount	<input checked="" type="checkbox"/> Stick up	<input type="checkbox"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>225</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>227.7</u>	<i>fttoc</i>	
Screened interval:	<u>215-225</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>42.48</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Located behind 40 Choir Lane about 100 ft into the basin, stick up

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-17S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7512	
Longitude	-73.5559	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Recharge Basin #51

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input type="checkbox"/> Flush Mount	<input checked="" type="checkbox"/> Stick up	<input type="checkbox"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>285</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>287.8</u>	<i>fttoc</i>	
Screened interval:	<u>275-285</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>42.55</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Located behind 40 Choir Lane about 100 ft into the basin, stick up

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: EX-1  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7529	
Longitude	-73.5558	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Recharge Basin #51

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>205</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>204.4</u>	<i>fttoc</i>	
Screened interval:	<u>185-205</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>39.07</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  behind 2666 hyacinth St, Westbury		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
behind 2666 hyacinth St, Westbury		
<i>Inspected by:</i> Jiss Philip, David Avudzega		
<i>Date of Inspection:</i> 11/21/2019		
<i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-16S  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7513	
Longitude	-73.5598	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 2485 Lindy Road

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>225</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>225.35</u>	<i>fttoc</i>	
Screened interval:	<u>215-225</u>	<i>ft</i>	
Open hole interval:		<i>ft</i>	
Depth to water:	<u>37.7</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments


*Inspected by:* Jiss Philip, David Avudzega  
*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-16D  
 Well Tag ID: \_\_\_\_\_  
 Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7513	
Longitude	-73.5598	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 2485 Lindy Road

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>285</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>285.55</u>	<i>fttoc</i>	
Screened interval:	<u>275-285</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>37.82</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-11S

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7479	
Longitude	-73.5677	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>225</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>224.65</u>	<i>fttoc</i>	
Screened interval:	<u>215-225</u>	<i>ft</i>	
Open hole interval:	<u>          </u>	<i>ft</i>	
Depth to water:	<u>37.99</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Opposite the rusted basketball Hoop; Nelson Place, south side of 817 Edgewood Drive

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-11D

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7479	
Longitude	-73.5677	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>285</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>284.6</u>	<i>fttoc</i>	
Screened interval:	<u>275-285</u>	<i>ft</i>	
Open hole interval:	<u> </u>	<i>ft</i>	
Depth to water:	<u>38.13</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Opposite the rusted basketball Hoop; Nelson Place, south side of 817 Edgewood Drive

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-13

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7468	
Longitude	-73.5696	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 843 Regent Drive

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>210</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>208.5</u>	<i>fttoc</i>	
Screened interval:	<u>200-210</u>	<i>ft</i>	
Open hole interval:	<u>          </u>	<i>ft</i>	
Depth to water:	<u>36.98</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
843 Regent Drive		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-12

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.749	
Longitude	-73.5711	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Stanford Court

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<u>inches</u>	
Well Diameter:	<u>2</u>	<u>inches</u>	
Well Depth (as installed):	<u>225</u>	<u>ftbgs</u>	
Well Depth (as measured):	<u>224.45</u>	<u>fttoc</u>	
Screened interval:	<u>215-225</u>	<u>ft</u>	
Open hole interval:		<u>ft</u>	
Depth to water:	<u>35.6</u>	<u>ftbtoc</u>	
Date:	<u>11/21/2019</u>		Time: <u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
In between 925 and 931 Stanford Court, Rusted bolt needed to be opened		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: MW-14

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7535	
Longitude	-73.5557	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Hyacinth Street

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>205</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>200.35</u>	<i>fttoc</i>	
Screened interval:	<u>185-205</u>	<i>ft</i>	
Open hole interval:	<u> </u>	<i>ft</i>	
Depth to water:	<u>39.36</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

2685 Hyacinth St, In front of the house

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-13A

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 1200 Old Country Rd

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>79</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>79.15</u>	<i>fttoc</i>	
Screened interval:	<u>69-79</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.81</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

1200 Old Country Rd, Westbury, In the grass off of entrance driveway

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-13B

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 1200 Old Country Rd

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>129</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>128.8</u>	<i>fttoc</i>	
Screened interval:	<u>119-129</u>	<i>ft</i>	
Open hole interval:		<i>ft</i>	
Depth to water:	<u>44.75</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

1200 Old Country Rd, Westbury, In the grass off of entrance driveway

*Inspected by:* Jiss Philip, David Avudzega

*Date of Inspection:* 11/21/2019

*Reviewed by:* \_\_\_\_\_ (Print)  
(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: FSMW-13C

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): 1200 Old Country Rd

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>249</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>249.3</u>	<i>fttoc</i>	
Screened interval:	<u>239-249</u>	<i>ft</i>	
Open hole interval:	<u></u>	<i>ft</i>	
Depth to water:	<u>44.83</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
1200 Old Country Rd, Westbury, In the grass off of entrance driveway		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-11851

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7539892	
Longitude	-73.5648489	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Grand Boulevard

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<b>Flush Mount</b>	Stick up	Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):			
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>65</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>62.5</u>	<i>fttoc</i>	
Screened interval:	<u>ft</u>		
Open hole interval:	<u>ft</u>		
Depth to water:	<u>40.06</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Manhole labeled as water, Opposite 872 Olive Blvd		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID: N-11859

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): Old Country Road

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock/security type:			
Elevation (top of inner casing):	_____		
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>2</u>	<i>inches</i>	
Well Depth (as installed):	<u>60</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>60.15</u>	<i>fttoc</i>	
Screened interval:	_____		
Open hole interval:	_____		
Depth to water:	<u>42.44</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:  		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Intersection of Old country road		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID:   N-10478

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7514893	
Longitude	-73.5701268	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="radio"/> Flush Mount	<input type="radio"/> Stick up	<input type="radio"/> Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):	_____		
Surface casing material:	<u>N/A</u>		
Well casing material:	<u>PVC</u>		
Surface Casing diameter:	<u>6</u>	<i>inches</i>	
Well Diameter:	<u>4</u>	<i>inches</i>	
Well Depth (as installed):	<u>121</u>	<i>ftbgs</i>	
Well Depth (as measured):	<u>116.15</u>	<i>fttoc</i>	
Screened interval:	_____		
Open hole interval:	_____		
Depth to water:	<u>39.88</u>	<i>ftbtoc</i>	
Date:	<u>11/21/2019</u>	Time:	<u>730</u>

\* If multilevel well please see attached worksheet.

EPA Region 2 Superfund Well Assessment Checklist		
<b>Well Condition</b>		
Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No
Other Comments:		
<b>Recommendations</b>		
Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No
<b>Comments</b>		
Almost under the road sign of Old Country rd and Barrington st		
<i>Inspected by:</i> Jiss Philip, David Avudzega <i>Date of Inspection:</i> 11/21/2019 <i>Reviewed by:</i> _____ <b>(Print)</b> _____ <b>(Sign)</b>		

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: New Cassel OU1  
 Site Address: New Cassel Hicksville  
 Site County: Nassau County  
 Site State: NY  
 EPA Site ID Number: NY0001095363  
 Site Owner:  
 EPA Project Manager: Julio Vazquez

### Well Locational Information

State Well ID:   N-104787

Well Tag ID: \_\_\_\_\_

Well Installation date: \_\_\_\_\_

	<i>From Log</i>	<i>By GPS</i>
Ground Surface Elevation		
Latitude	40.7514893	
Longitude	-73.5701268	
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)	<input checked="" type="checkbox"/> Flush Mount	<input type="checkbox"/> Stick up	<input type="checkbox"/> Multilevel Well*
Well lock\security type:			
Elevation (top of inner casing):	_____		
Surface casing material:	N/A		
Well casing material:	PVC		
Surface Casing diameter:	6	inches	
Well Diameter:	2	inches	
Well Depth (as installed):	57	ft <b>bg</b> s	
Well Depth (as measured):	ft <b>toc</b>		
Screened interval:	ft		
Open hole interval:	ft		
Depth to water:	ft <b>boc</b>		
	Date: 11/21/2019	Time: 730	

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Condition

Is the concrete pad in good condition?	Yes	No
Is the well surface casing in good condition?	Yes	No
Is the surface casing vertical?	Yes	No
Is there an internal well seal?	Yes	No
Has there been physical damage to the well?	Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	Yes	No
Is the well clearly labeled?	Yes	No
Flush mount - Is it secure from runoff?	Yes	No

Other Comments:

### Recommendations

Well needs to be redeveloped	Yes	No
Well needs to be re-surveyed.	Yes	No
Well needs to be repaired.	Yes	No
Well needs to be replaced.	Yes	No
Well needs to be properly abandoned.	Yes	No
No action necessary.	Yes	No

### Comments

Almost under the road sign of Old Country rd and Barrington st, Could not open well cap

**Inspected by:** Jiss Philip, David Avudzega

**Date of Inspection:** 11/21/2019

**Reviewed by:** \_\_\_\_\_ **(Print)**  
\_\_\_\_\_  
**(Sign)**

NCIA RD  
Nassau County, New York  
Synoptic Water Level Measurem

Well ID	Well Dia. (inches)	Date	Time	Depth to Water (ft)	Measured Well Depth (ft)	Installed Well Depth (ft) (ft bgs)	Comments	Well Installer/ Owner	Well Location Address/ Nearest Address
EW-1B	2	11/20	1046	61.73	157.55	164	In the middle of flowers between	Bowling Green	Flower Street, Westbury
EW-1C	4	11/20	1054	61.89	515.05	516	Hunting St and IV's Place	Bowling Green	Flower Street, Westbury
EW-2B	2	11/20	1347	62.13	131.10	142	on the Road in front of 2531 and	Bowling Green	Astor Place North, Westbury
EW-2C	4					514	2535 Astor place, metal on metal well	Bowling Green	Astor Place North, Westbury
OU3-B1S 380-390	2"	11/20	1702	21.73	390.10	390	Between Road and side walk	EPA	693 The Plain Road, Westbury
OU3-B2S 262.5-272.5	2"	11/20	1725	32.39	272.70	272.5	In the road	EPA	Across from 872 Plum Tree Road East, side yard of 2255 Elderberry Drive, Westbury
OU3-B3S 375-385	2"	11/20	1750	37.80	384.60	385		EPA	825 Merillon Ave., Westbury
N-08984	Could not locate					52		Nassau County	Salisbury Park Drive
N-09938	4	11/20	7:51	48.95	68.7	79.6	labeled as water test, Building 1 label	Nassau County	Brooklyn Ave/Main Street, Westbury
N-10292	Could not locate					50		Nassau County	Park Blvd
N-10319	6"	11/20	1022	62.09	63.65	57	Inside fence, need to get fence opened	Nassau County	558 Main Street, Westbury (located on Swain Avenue, near 5th Street-Skye)
N-10324	Cannot find					57		Nassau County	496 grand Blvd, Westbury
N-10466	Could not locate					60		Nassau County	530 Grand Blv/Hopper Street, Westbury
N-10475	Cannot access behind house					57	COULD NOT LOCATE, IN THE BACKWARD	Nassau County	738 Edgewood Drive, Westbury
N-10476	in the backward					130	OF HOUSE ACCORDING TO OPS	Nassau County	738 Edgewood Drive, Westbury
N-10328 (NC-11)	2"	11/20	7:10	13.84	64.85	58	New to the area well, no wells marked	Nassau County DOH	New York Avenue/Old Country Road, New Cassel - at the intersection
N-10477	2					57	almost under sign of Old country	Nassau County DOH	751 Old Country Road, Westbury
N-10478	4	11/21	1225	39.88	116.35	121	Roland Darlingson St	Nassau County DOH	751 Old Country Road, Westbury
EX-1	6	11/21	758	35.69	204.5	205	flush mount about 100 ft from road	NYSDEC	Recharge Basin #51 - behind 2666 hyacinth St, Westbury
EX-2	6	11/20	1554	35.87	285.25	285	In the road on Sheldon Dr	NYSDEC	Sheldon Drive, side yard of 858 Edgewood Drive, Westbury
MW-01	2	11/20	1434	42.15	109.75	110	Cross section of bowling green	NYSDEC	Myron - side yard of 1054 Bowling Green Dr. Westbury
MW-02	2	11/20	1430	42.19	128.42	130	Myron in front of stop sign opposite	NYSDEC	Myron - side yard of 1054 Bowling Green Dr. Westbury
MW-03	2"	11/20	1427	42.10	149.52	150	2436 Myron Rd	NYSDEC	on Myron, side yard of 1054 Bowling Green Drive, Westbury
MW-04	4" 2	11/20	1423	42.42	198.80	200		NYSDEC	on Myron, side yard of 1054 Bowling Green Drive, Westbury
MW-05	2	11/20	1508	43.73	109.70	110	on grand Blvd in front of 1082 grand Blvd	NYSDEC	Grand Blvd
MW-06	2	11/20	1504	43.78	128.7	130	in the grass next to the tree	NYSDEC	Grand Blvd
MW-07	2	11/20	1537	36.72	109.20	110	Front of school parking lot between sidewalk	NYSDEC	Edgewood Drive Next to No stopping anytime sign
MW-08	2	11/20	1540	3684	138.90	140	and road on Edgewood Ave	NYSDEC	Edgewood Drive
MW-09	2	11/20	1501	39.31	315.35	315	In front of 988 Bowling green, on the sidewalk	NYSDEC	988 Bowling Green Drive, Westbury between sidewalk and road
MW-10	2	11/20	1441	41.93	283.25	285	On the road in front of 1054 Bowling green	NYSDEC	Bowling Green Drive, Westbury labeled as water
MW-11D	2	11/21	910	38.13	281.6A	285	Opposite the Rusted Bikerball	NYSDEC	Nelson Place, south side of 817 Edgewood Drive
MW-11S	2	11/21	906	37.99	224.65	225	Kite hoop	NYSDEC	Nelson Place, south side of 817 Edgewood Drive
MW-12	2	11/21	938	35.60	224.65	225	In between 925 and 931 Stratford Court	NYSDEC	Stratford Court Rusted bulk need to come back
MW-13	2	11/21	922	36.98	208.50	210		NYSDEC	843 Regent Drive

NCIA RD  
Nassau County, New York  
Synoptic Water Level Measurement

4383

Well ID	Well Dia. (inches)	Date	Time	Depth to Water (ft)	Measured Well Depth (ft)	Installed Well Depth (ft) (ft bgs)	Comments	Well Installer/ Owner	Well Location Address/ Nearest Address
MW-14	2	11/21	9:56	39.36	200.35	205	In front of 2685 on the Road	NYSDEC	2685 Hyacinth St., Westbury In front of house
MW-15	2	11/21	7:32	31.07	204.10	205	Behind the red shed	NYSDEC	Recharge Basin #51 Behind the house 2618 Hyacinth St.
MW-16D	2	11/21	8:55	37.83	285.55	285	In front of 2483	NYSDEC	2485 Lindy Road, Westbury
MW-16S	2	11/21	8:58	37.70	225.35	225	"	NYSDEC	2485 Lindy Road, Westbury
MW-17D	2	11/21	7:48	42.55	287.80	285	located behind 40 Chaff Lane	NYSDEC	Recharge Basin #51
MW-17S	2	11/21	7:45	42.48	227.70	225	About 100 ft into Driv, stick up	NYSDEC	Recharge Basin #51
FSMW-03B	2	11/20	8:10	51.60	145	143	In the parking lot, after 3 light pole from <del>business</del> business	Spiegel Associates	89 Frost Street, Westbury
FSMW-05B	2	11/20	8:28	46.02	137.7	137	on the entrance roadway to old	Spiegel Associates	1137 Old Country Rd, Westbury
FSMW-07B	2	11/20	7:30	48.13	146.10	145	located in front of Walled National Bank, <del>Closes road to country road</del>	Spiegel Associates	1065/1085 Old Country Rd, Westbury
FSMW-13A	2	11/20	10:06	46.81	76.15	79	In the grass off of entrance	Spiegel Associates	1200 Old Country Rd, Westbury
FSMW-13B	2	11/20	10:11	46.75	128.80	129	drive way	Spiegel Associates	1200 Old Country Rd, Westbury
FSMW-13C	2	11/20	10:16	46.83	249.30	249		Spiegel Associates	1200 Old Country Rd, Westbury
FSMW-14A	2	11/20	13:04	46.04	129.35	129	On the curb of Hyacinth court	Spiegel Associates	Hyacinth Street, Westbury
FSMW-14B	2	11/20	13:08	46.40	165.70	169	between 2727 and 2726 Heec Ct	Spiegel Associates	Hyacinth Street, Westbury
FSMW-14C	2	11/20	13:12	46.20	251.20	249	"	Spiegel Associates	Hyacinth Street, Westbury
N-11843	2"	11/20	9:22	46.73	58.35	55	Ron Busciolano - <del>well located</del> between two buildings <del>100 ft</del> <del>or street manhole cover</del> <del>saw well</del>	USGS	Main Street/Swalm Street, New Cassel
N-11848	2"	11/21	10:50	45.86	62.50	60	corner street	USGS	721 Anna Ave., Westbury
N-11849	2"	11/21	10:50	45.86	62.50	60	corner street	USGS	25 Elton Street, Westbury
N-11850	2"	11/21	10:50	45.86	62.50	65	could not locate	USGS	522 Grand Boulevard, Westbury
N-11851	2"	11/21	10:50	45.86	62.50	65	water/lable in hole; opposite 872 <del>located on</del> Oliver Ave	USGS	Grand Boulevard, Westbury
N-11852	2"	11/21	10:50	45.86	62.50	100	corner street	USGS	Oliver Ave/Grand Blvd
N-11854	2"	11/21	10:50	45.86	62.50	55	could not find, looks like it was corner	USGS	Sylvester Street, Westbury
N-11858	2"	11/21	10:50	45.86	62.50	60	grass overgrown	USGS	800 Oliver Ave., Westbury <del>must have been able to find with</del>
N-11859	2"	11/21	10:50	45.86	62.50	60	intersection of Old County Road/Crossroad	USGS	837 Old Country Road, Westbury
N-11861	2"	11/21	10:50	45.86	62.50	60	says manhole filled in	USGS	Bowling Green Drive/Myron Road, Westbury <del>labeled as water labeled</del>
N-11862	2"	11/21	10:50	45.86	62.50	60	on the corner under the sign Bowly Green	USGS	1187 Bernard/Edgewood Drive, Westbury <del>Cross road or Enclosed DR/Myron</del>
N-02602	2"	11/21	10:50	45.86	62.50	60	Ron Busciolano at the T in the road, labeled <del>as water</del>	Westbury Water District	160 Drexel Ave., Westbury
N-08497	2"	11/21	10:50	45.86	62.50	539		Westbury Water District	160 Drexel Ave., Westbury <del>could not access the water level probe</del>

MDCW-2D 2" 11/20 8:48 43.83 109.5  
103-MWD 2 wells 2" 11/20 9:2 47.19 84.40

in front of Old Country Liquors  
next to Old County Road/New York  
next to Manly/Swalm corner well/corner of street

meter for b.s to fd

506194  
11850-the resident  
came out and told us  
she was a well here in  
the side salt box and not

## **Appendix B**

### **Groundwater Sampling Field Records**



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u>						
Date: <u>12/10/2019</u>				Field Personnel: _____						
Weather: _____										
Monitor Well #: <u>EX-1</u>		Well Depth: <u>204.5 ft btoc</u>		Screened/Open Interval: <u>185-205 ft btoc</u>						
Wel Permit #: _____		Well Diameter: <u>6</u> Inches								
PID Readings (ppm): Background: <u>0</u> Beneath Outer Cap: <u>0</u> Beneath Inner Cap: <u>2.7 ppm</u>										
Pump Intake Depth: <u>195</u> Depth to Water Before Pump Installation: <u>34.80</u> Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>										
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	
1155	X									
1205	X	13.40		9.63		68.4		10.97		160
1210	X	13.29		9.71		82.4		5.57		160
1215	X	13.18		8.26		141.2		5.54		160
1220	X	13.20		7.01		120.0		3.60		160
1225	X	13.22		6.23		100.0		3.67		160
1230	X	13.38		6.38		70.6		2.22		160
1235	X	13.38		6.14		63.6		2.16		160
1240	X	13.38		6.42		60.6		2.16		160
1245	X	13.39		6.42		59.1		2.18		160
1250	X	13.38		6.42		58.5		2.16		160
1255	X	13.36		6.42		57.3		2.13		160
1300	X	13.39		6.43		56.8		2.00		160
1305	X	13.39		6.43		55.1		2.09		160
1310	X	13.39		6.43		55.1		2.12		160
1315	X	13.40		6.43		53.5		2.15		160
1320	X	13.41		6.43		53.0		2.16		160
1325	X	13.40		6.43		52.5		2.14		160
1330	X	13.40		6.43		52.3		2.15		160
1335	X	13.40		6.43		51.7		2.23		160
Comments: <b>1140-1155 Collapsed bladder, pump was pulled and reinstalled and purging was started again; Water is Rust Colored</b>										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company		Field Personnel:		HDR								
Date:	12/4/2019															
Weather:																
Monitor Well #: EX-2			Well Depth: 285.25 ft btoc				Screened/Open Interval: 265-285 ft btoc									
Wel Permit #: _____			Well Diameter: 6 Inches													
PID Readings (ppm):																
Background: 0				Pump Intake Depth: 275 Ft Below TOC												
Beneath Outer Cap: 0				Depth to Water Before Pump Installation: 36.00 Ft below TOC												
Beneath Inner Cap: 0.2				Make/Model of Pump: Geotech Bladder Pump with Drop Tube												
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1000	X			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1010	X															
1015	X		14.04		9.38		-177.4		0.249		12.07		18.6		200	36.00
1020	X		14.35		8.54		-174.3		0.274		5.48		32.5		200	36.00
1025	X		14.36		6.72		-161.8		0.359		2.36		40.8		200	36.00
1030	X		14.39		6.61		-169.5		0.374		1.89		53.0		200	36.00
1035	X		14.36		6.57		-178.4		0.379		1.50		56.4		200	36.00
1040	X		14.35		6.56		-180.9		0.381		1.45		53.6		200	36.00
1045	X		13.45		6.56		-190.4		0.383		1.38		57.4		200	36.00
1050	X		14.07		6.57		-196.5		0.380		1.25		48.2		200	36.00
1055	X		13.53		6.58		-202.0		0.384		1.16		51.8		200	36.00
1100	X		14.25		6.57		-200.5		0.380		1.24		32.5		200	36.00
1105	X		14.45		6.57		-208.8		0.382		1.33		40.8		200	36.00
1110	X		14.51		6.56		-221.4		0.382		0.96		38.2		200	36.00
1115	X		14.52		6.56		-226.6		0.382		0.83		35.2		200	36.00
1120	X		14.52		6.56		-220.9		0.382		0.75		36.0		200	36.00
1125	X		14.52		6.56		-226.1		0.381		0.68		35.9		200	36.00
1130	X		14.53		6.57		-229.1		0.381		0.65		34.8		200	36.00
1135	X		14.51		6.56		-228.1		0.381		0.60		34.1		200	36.00
1140	X															
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR				
Date:					Field Personnel:	JK				
Weather:										
Monitor Well #:	EW-1C		Well Depth:	515.05		Screened/Open Interval:	132-142			
Wel Permit #:			Well Diameter:	4' Inches						
PID Readings (ppm):			Background: 0 Beneath Outer Cap: 0 Beneath Inner Cap: 0							
			Pump Intake Depth: 510 Ft Below TOC Depth to Water Before Pump Installation: 42.14 Make/Model of Pump: Geotech Bladder Pump with Drop Tube							
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1130	X		15.74	9.11	-98.6	0.252	3.36	245	250	42.14
1135	X		15.77	9.05	-100.0	0.252	3.12	203	250	42.14
1140	X		15.64	8.51	-106.0	0.246	2.32	175	250	42.14
1150	X		15.68	8.75	-112.3	0.241	1.61	1040	250	42.25
1155	X		15.75	7.41	-112.8	0.242	1.53	1140	250	42.25
1200	X		15.73	8.36	-113.6	0.239	1.47	1338	250	42.25
1205	X		15.68	8.21	-103.3	0.232	1.56	1142	250	42.25
1210	X		15.71	8.01	-101.1	0.230	1.71	1023	250	42.25
1215	X		15.62	7.93	-98.6	0.229	1.83	903	250	42.25
1220	X		15.63	7.84	-96.0	0.229	1.92	856	250	42.25
1225	X		15.68	7.83	-96.2	0.228	1.91	513	250	42.25
1230	X		15.69	7.79	-95.5	0.228	1.67	783	250	42.25
1235	X		15.66	7.68	-89.3	0.226	1.31	823	250	42.25
1240	X		15.87	7.63	-86.2	0.226	1.23	802	250	42.25
1245	X		15.56	7.55	-82.5	0.225	1.30	753	250	42.25
1250	X		15.53	7.52	-80.1	0.225	1.30	716	250	42.25
1255	X		15.52	7.48	-77.1	0.224	1.32	681	250	42.25
1300	X		15.44	7.45	-74.6	0.223	1.31	662	250	42.25
1305	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: New Cassel  
 Date: \_\_\_\_\_  
 Weather: \_\_\_\_\_

Company HDR  
 Field Personnel: JK

Monitor Well #: EW-2B Well Depth: 131.1 ft btoc  
 Wel Permit #: \_\_\_\_\_ Well Diameter: 2 Inches

Screened/Open Interval: 132-142 ft btoc

PID Readings (ppm):  
 Background: 0  
 Beneath Outer Cap: 0  
 Beneath Inner Cap: 0

Pump Intake Depth: 130 Ft Below TOC  
 Depth to Water Before Pump Installation: 42.25 Ft below TOC  
 Make/Model of Pump: Geotech Bladder Pump with Drop Tube

TIME	Purging	Sampling	Temperature (degrees C)		pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)
			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*		
1300	X															42.25
1400	X		Water to surface - Pulled pump due to collapsed bladder													
1425	X		9.98		6.47		199.6		7.220		9.78					42.45
1540	X		Start pumping, corrected equipment malfunction													
1545	X		9.92		6.69		184.4		0.230		10.98		43.6		80	42.51
1550	X		10.15		6.53		198.9		0.226		9.60		47.7		80	42.51
1555	X		10.53		6.23		207.3		0.209		8.38		39.9		80	42.51
1605	X		10.96		6.96		215.9		0.197		6.88		21.8		80	42.51
1610	X		11.01		6.02		218.3		0.198		6.25		20.3		80	42.51
1615	X		11.03		6.02		219.5		0.199		6.01		50.7		80	42.51
1620	X		11.06		6.03		223.4		0.202		5.45		80		80	42.51
1625	X		11.03		6.04		223.6		0.204		5.41		83.9		80	42.51
1630	X		11.01		6.05		224.1		0.205		5.29		98.7		80	42.51
1635	X		10.48		6.04		224.7		0.208		5.21		121		80	42.51
1640	X		10.75		6.05		226.7		0.211		5.14		135		80	42.51
1645	X		10.66		6.05		227.2		0.211		5.21		23.1		80	42.51
1650	X		10.67		6.05		227.5		0.211		5.15		22.2		80	42.51
1655	X		10.69		6.05		229.0		0.211		5.06		21.7		80	42.51

Comments:

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>	Company <u>HDR</u>														
Date: <u>12/2/2019</u>	Field Personnel:														
Weather:															
Monitor Well #: <u>FSMW-13C</u>		Well Depth: <u>249.3 ft btoc</u>	Screened/Open Interval: <u>239-249 ft btoc</u>												
Well Permit #: <u></u>		Well Diameter: <u>2</u> Inches													
<b>PID Readings (ppm):</b> Background: <u>0</u> Pump Intake Depth: <u>Ft Below TOC</u> Beneath Outer Cap: <u>0</u> Depth to Water Before Pump Installation: <u>Ft below TOC</u> Beneath Inner Cap: <u>0</u> Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>															
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1150	X														
1200	X		11.69		6.40		-73.0		0.200		4.08		13	150	44.82
1205	X		12.60		6.35		-74.4		0.175		3.73		5.02	150	44.82
1210	X		12.96		6.28		-57.6		0.180		3.30		6.6	150	44.82
1215	X		12.96		6.26		-49.0		0.186		3.29		10.89	150	44.82
1220	X		12.96		6.21		-31.3		0.196		3.13		135	150	44.82
1225	X		12.81		6.18		-17.2		0.197		3.03		25.6	160	44.82
1230	X		12.74		6.16		-14.3		0.203		3.00		22.3	160	44.82
1235	X		13.47		6.07		14.4		0.208		2.91		25.7	160	44.82
1240	X		13.61		5.94		38.8		0.219		2.99		22.2	160	44.82
1245	X		13.68		5.72		75.0		0.542		3.30		135	160	44.82
1250	X		13.68		5.57		90.4		0.252		3.48		12.7	160	44.82
1255	X		13.75		5.47		106.3		0.265		3.75		11	140	44.82
1300	X		13.68		5.37		118.7		0.277		3.80		11.5	140	44.82
1305	X		13.16		5.36		129.7		0.284		3.89		10.3	140	44.82
1310	X		13.66		5.24		148.6		0.286		3.82		10.53	140	44.82
1315	X		13.19		5.24		147.5		0.287		3.87		9.6	140	44.83
1320	X		13.51		5.18		157.9		0.292		3.99		8.1	140	44.83
1325	X		13.54		5.13		167.4		0.295		3.99		8.33	140	44.83
1330	X		13.62		5.08		176.4		0.297		4.01		8.18	140	44.83
1340	X		13.35		5.04		187.6		0.299		4.06		7.78	140	44.83
1345	X		13.45		4.03		191.9		0.300		4.03		8.01	140	44.83
1350	X		13.39		4.04		194.0		0.300		4.04		7.35	140	44.83
1355	X		13.32		5.00		196.0		0.300		4.05		8.07	140	44.83
1400	X														
Comments:															

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u>		Field Personnel: <u>JK</u>									
Date:															
Weather:															
Monitor Well #: <u>FSMW-14C</u>		Well Depth: <u>251.2 ft btoc</u>		Screened/Open Interval: <u>239-249 ft btoc</u>											
Wel Permit #: <u></u>		Well Diameter: <u>2</u> Inches													
PID Readings (ppm): Background: _____ Beneath Outer Cap: _____ Beneath Inner Cap: _____						Pump Intake Depth: <u>244</u> Ft Below TOC Depth to Water Before Pump Installation: <u>44.25</u> Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>									
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)
			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1520	X		13.44		6.83		154.2		0.279		9.78			100	44.25
1539	X		14.45		4.75		92.2		0.300		6.03		33.9	100	44.25
1545	X		14.48		4.74		92.6		0.300		6.04		37.5	100	44.25
1550	X		14.50		4.82		91.3		0.302		6.10		48.9	100	44.25
1555	X		14.51		4.86		82.7		0.304		6.17		72.6	100	44.25
1600	X		14.68		4.67		85.1		0.311		6.29		63.8	100	44.25
1605	X		14.72		4.67		85.4		0.312		6.28		70.8	100	44.25
1610	X		14.72		4.66		85.6		0.313		6.32		62.9	100	44.25
1615	X		14.68		4.65		85.5		0.318		6.50		43.4	100	44.25
1620	X		14.71		4.65		86.6		0.320		6.58		36.2	100	44.25
1625	X		14.73		4.65		87.5		0.321		6.67		30.6	100	44.25
1630	X		14.75		4.65		88.1		0.324		6.71		26.1	100	44.25
1635	X		14.83		4.65		91.2		0.326		6.79		22.4	100	44.25
1640	X		14.81		4.65		94.3		0.328		6.98		16.6	100	44.25
1645	X		14.80		4.66		96.2		0.328		6.96		15.7	100	44.25
1650	X		14.80		4.63		97.4		0.330		6.97		17.0	100	44.25
1655	X														
Comments: <u>Re calibrated the Iamotte due to (-) turbidity measurement; results varried from 80 to -50 to +30 NTU for same sample; Cleaned fog and moisture from sensor</u>															

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature;  
±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company		Field Personnel:		HDR								
Date:	11/25/2019			JK												
Weather:	48, partly cloudy															
Monitor Well #:		MW-1	Well Depth:	109.75	Screened/Open Interval:				90-110							
Wel Permit #:			Well Diameter:	2 Inches												
PID Readings (ppm):																
Background: 0					Pump Intake Depth: 100 Ft Below TOC											
Beneath Outer Cap: 0					Depth to Water Before Pump Installation: 42.15 Ft below TOC											
Beneath Inner Cap: 0.1					Make/Model of Pump: Geotech Bladder Pump with Drop Tube											
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1110	X		14.09	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	75	42.15	
1115	X		14.90			6.15		-166.1		27.96		13.49		75	42.15	
1120	X		15.07			5.91		-159.3		30.46		12.67		75	42.15	
1125	X		15.12			5.50		-151.4		35.77		9.39		75	42.15	
1130	X		15.12			5.46		-153.3		35.82		9.13		64.1	75	42.15
1135	X		14.97			5.36		-155.3		35.95		7.97		72.6	75	42.15
1140	X		14.44			5.33		-153.0		36.02		10.01		68.1	75	42.15
1145	X		14.59			5.34		-153.3		35.51		8.00		49.9	75	42.15
1150	X		14.59			5.35		-144.3		39.10		17.00		55.1	75	42.15
1155	X		14.22			5.33		-152.2		35.78		12.17		53.9	75	42.15
1200	X		14.57			5.32		-152.4		35.68		10.59		55.3	75	42.15
1205	X		15.00			5.30		-152.9		36.04		7.99		55.8	75	42.15
1210	X		15.07			5.27		-153.0		36.08		7.68		60.9	75	42.15
1215	X		15.11			5.24		-153.5		35.93		7.96		36.5	75	42.15
1220	X		15.13			5.23		-154.4		35.80		8.20		39.0	75	42.15
1225	X		15.12			5.23		-154.6		35.75		7.93		36.8	75	42.15
1230	X															
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company		HDR										
Date:	11/25/2019			Field Personnel:		TG,JK,DA										
Weather:	48 F, Mostly sunny															
Monitor Well #: MW-2			Well Depth: 128.42 ft btoc		Screened/Open Interval: 110-130 ft btoc											
Wel Permit #:			Well Diameter: 2 Inches													
PID Readings (ppm):																
Background: 0			Pump Intake Depth: 120 Ft Below TOC													
Beneath Outer Cap: 0			Depth to Water Before Pump Installation: 42.22 Ft below TOC													
Beneath Inner Cap: 0			Make/Model of Pump: Geotech Bladder Pump with Drop Tube													
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1035	X			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*		42.22	
1100	X														42.31	
1105	X		15.58		6.81		209.9		0.345		7.54		26.3		200	42.40
1110	X		15.50		5.54		231.9		0.485		3.83		30.5		200	42.40
1115	X		15.56		5.21		233.0		0.520		2.44		28.3		180	42.40
1120	X		15.69		5.11		232.2		0.528		2.17		30.4		180	42.40
1125	X		15.72		5.06		228.0		0.533		1.92		23.4		180	42.40
1130	X		15.74		5.04		225.1		0.531		1.76		22.4		180	42.40
1135	X		15.58		5.07		221.6		0.526		1.63		20.4		180	42.40
1140	X		15.68		5.06		220.4		0.522		1.61		22.8		180	42.38
1145	X		18.83		5.05		217.8		0.520		1.42		21.4		180	42.38
1150	X		15.78		5.04		216.8		0.521		1.49		17.6		180	42.38
1155	X		15.74		5.02		216.2		0.522		1.46		17.0		180	42.38
1200	X		15.83		5.00		215.8		0.525		1.42		12.8		180	42.38
1205	X		15.77		4.98		215.2		0.528		1.49		13.7		180	42.38
1210	X		15.68		4.97		215.4		0.530		1.45		14.2		180	42.38
1215	X		15.65		4.96		215.6		0.532		1.44		11.4		180	42.38
1220	X		15.74		4.93		214.7		0.533		1.40		11.8		180	42.38
1225	X		15.77		4.92		212.1		0.534		1.38		11.4		180	42.38
1235	X															
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>		Company Field Personnel:		HDR						
Date: <u>11/25/2019</u>	Weather: <u>51 F. Partly Sunny</u>									
Monitor Well #: <u>MW-3</u>		Well Depth: <u>148.92 ft btoc</u>	Screened/Open Interval: <u>130-150 ft btoc</u>							
Wel Permit #: <u></u>		Well Diameter: <u>2</u> Inches								
PID Readings (ppm): Background: <u>0</u> Beneath Outer Cap: <u>0</u> Beneath Inner Cap: <u>0</u>						Pump Intake Depth: <u>140</u> Ft Below TOC Depth to Water Before Pump Installation: <u>42.17</u> Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>				
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1430	X		15.49	5.66	-80.2	11.58	15.39	635	180	42.17
1435	X		15.18	4.15	-99.1	12.410	5.66	629	180	42.17
1440	X		15.09	4.11	-102.0	12.450	5.26	625	180	42.17
1445	X		15.05	3.98	-107.1	12.450	3.89	310	180	42.17
1450	X		15.00	3.96	-108.2	12.430	3.70	405	180	42.17
1455	X		14.87	3.93	-103.3	12.410	3.40	327	180	42.17
1500	X		14.85	3.93	-80.3	12.430	3.30	363	180	42.17
1505	X		14.83	3.93	-72.9	12.360	3.32	378	180	42.17
1510	X		14.86	3.93	-76.3	12.300	3.35	343	180	42.17
1515	X		14.86	3.98	-76.6	12.210	3.29	289	180	42.17
1520	X		14.72	3.98	-80.3	12.220	3.19	234	180	42.17
1525	X		14.63	3.98	-84.1	12.240	3.17	207	180	42.17
1530	X		14.63	4.00	-83.1	12.190	3.07	142	180	42.17
1535	X		14.55	4.01	-84.9	12.100	3.00	149	180	42.17
1540	X		14.72	4.01	-83.9	12.150	2.98	138	180	42.17
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

**Sheet** \_\_\_\_\_ **of** \_\_\_\_\_

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u>						
Date: <u>12/4/2019</u>	Field Personnel:									
Weather:										
Monitor Well #: <u>MW-5</u>		Well Depth: <u>109.7 ft btoc</u>		Screened/Open Interval: <u>90-110 ft btoc</u>						
Wel Permit #: <u></u>		Well Diameter: <u>2</u> Inches								
<b>PID Readings (ppm):</b> Background: _____ Beneath Outer Cap: _____ Beneath Inner Cap: _____										
Pump Intake Depth: <u>100</u> Ft Below TOC Depth to Water Before Pump Installation: <u>43.90</u> Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>										
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
950	X									
955	X		12.77	8.16	-21.6	0.156	10.13	Max	200	43.90
1000	X		13.41	7.60	-63.4	0.244	9.10	Max	200	43.90
1005	X		13.86	6.67	-59.5	0.314	8.63	Max	200	43.90
1010	X		13.88	6.65	-59.8	0.314	8.61	Max	200	43.90
1015	X		14.49	6.35	-68.0	0.304	8.26	648	200	43.90
1020	X		14.51	6.30	-70.0	0.304	8.18	348	200	43.90
1025	X		14.52	6.29	-70.7	0.305	8.17	122	200	43.90
1030	X		14.55	6.24	-73.4	0.327	8.06	123	200	43.90
1035	X		14.32	6.23	-74.2	0.332	8.10	124	200	43.90
1040	X		14.51	6.22	-75.4	0.346	8.01	87.7	200	43.90
1045	X		14.27	6.22	-77.7	0.357	7.95	54.6	200	43.90
1050	X		13.36	6.21	-82.9	0.360	8.05	78.9	200	43.90
1055	X		14.13	6.20	-83.1	0.379	7.77	40.1	200	43.90
1100	X		14.32	6.20	-82.3	0.382	7.79	36.2	200	43.90
1105	X		14.39	6.19	-81.3	0.387	7.91	34.6	200	43.90
1110	X		14.36	6.18	-79.8	0.391	7.96	35.5	200	43.90
1115	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR										
Date:	12/4/2019				Field Personnel:	JK/JP										
Weather:																
Monitor Well #:	MW-6		Well Depth:	128.07 ft btoc		Screened/Open Interval:	110-130 ft btoc									
Wel Permit #:			Well Diameter:	2 Inches												
PID Readings (ppm):																
Background: 0				Pump Intake Depth: 120 Ft Below TOC												
Beneath Outer Cap: 0				Depth to Water Before Pump Installation: 43.92 Ft below TOC												
Beneath Inner Cap: 0				Make/Model of Pump: Geotech Bladder Pump with Drop Tube												
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1000	X			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1010	X		13.20		6.97		208.5		0.271		8.74		251		200	43.98
1020	X		13.98		6.92		219.2		0.503		6.39		245		200	43.98
1025	X		14.01		5.91		220.7		0.507		6.27		238		200	43.98
1030	X		14.13		5.90		225.7		0.508		5.87		200		200	43.98
1035	X		14.15		5.90		227.1		0.505		5.81		172		200	43.98
1040	X		14.28		5.92		227.1		0.496		5.80		174		200	43.98
1045	X		14.39		9.96		224.7		0.482		5.95		159		200	43.98
1050	X		14.43		9.56		222.0		0.482		5.55		143		200	43.98
1055	X		14.27		5.94		222.4		0.489		5.60		69.2		200	43.98
1100	X		14.21		5.93		223.4		0.491		5.58		61.2		200	43.98
1105	X		14.27		5.89		223.7		0.491		5.53		45.5		200	43.98
1110	X		13.77		5.87		225.7		0.502		5.77		34.6		200	43.98
1115	X		13.88		5.86		225.4		0.501		5.71		38.1		200	43.98
1120	X		13.79		5.83		225.5		0.505		5.83		26.2		200	43.98
1125	X		14.09		5.82		226.1		0.505		5.66		24.7		200	43.98
1130	X		14.05		5.81		227.2		0.505		5.70		23.7		200	43.98
1135	X		14.09		5.79		229.2		0.507		5.71		23.0		200	43.98
1140		X														
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company	HDR											
Date:	12/6/2019			Field Personnel:	JK/JP											
Weather:																
Monitor Well #:	MW-7			Well Depth:	109.2 ft btoc											
Well Permit #:				Well Diameter:	2 Inches											
				Screened/Open Interval: 90-110 ft btoc												
PID Readings (ppm):				Pump Intake Depth: 98 Ft Below TOC												
Background: 0				Depth to Water Before Pump Installation: 36.91 Ft below TOC												
Beneath Outer Cap: 0				Make/Model of Pump: Geotech Bladder Pump with Drop Tube												
Beneath Inner Cap: 0																
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
			Reading	Change*		Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
905	X													210	36.91	
925	X		12.85		8.61		203.1		0.268		8.70		5.77		210	36.91
930	X		12.23		8.64		212.0		0.277		8.55		621		210	36.91
935	X		12.88		5.18		222.6		0.296		7.81		764		210	36.91
940	X		13.56		4.92		235.7		0.306		7.55		690		210	36.91
945	X		13.62		4.84		245.3		0.306		7.17		785		210	36.91
950	X		13.60		4.54		247.3		0.306		7.12		704		210	36.91
955	X		13.61		4.84		250.4		0.305		7.22		699		210	36.91
1000	X		13.62		4.85		251.6		0.303		7.36		216		210	36.91
1005	X		13.61		4.88		253.6		0.297		7.38		141		210	36.91
1010	X		13.61		4.89		253.6		0.296		7.38		126		210	36.91
1015	X		13.59		4.90		253.4		0.294		7.10		129		210	36.91
1020	X		13.53		4.92		253.3		0.292		7.00		116		210	36.91
1025	X		13.61		4.93		253.8		0.292		6.92		90.6		210	36.91
1030	X		13.53		4.93		254.1		0.293		6.91		74.2		210	36.91
1035	X		13.61		4.92		255.3		0.296		6.88		48.0		210	36.91
1040	X		13.63		4.91		256.0		0.298		6.86		38.4		210	36.91
1045	X		13.60		4.90		256.2		0.301		6.92		32.1		210	36.91
1050	X		13.77		4.89		256.2		0.303		6.76		29.7		210	36.91
1055	X		13.80		4.89		256.5		0.305		6.72		18.1		210	36.91
1100	X		13.8		4.89		256.9		0.306		6.78		18.1		210	36.91
1105	X		13.78		4.89		256.7		0.306		6.75		17.3		210	36.91
1110	X															
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR pH; ±3% for Specific Conductivity and Temperature;  
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR										
Date:	12/6/2019				Field Personnel:											
Weather:																
Monitor Well #:	MW-8		Well Depth:	138.9 ft btoc		Screened/Open Interval:	120-140 ft btoc									
Wel Permit #:			Well Diameter:	2 Inches												
PID Readings (ppm):																
Background: _____				Pump Intake Depth: 130 Ft Below TOC												
Beneath Outer Cap: _____				Depth to Water Before Pump Installation: 37.20 Ft below TOC												
Beneath Inner Cap: _____				Make/Model of Pump: Geotech Bladder Pump with Drop Tube												
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)						
920	X		Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*						
925	X		13.34		6.20		-146.5		0.251		11.46		1591		250	37.33
930	X		13.33		5.32		-112.9		0.383		6.11		1124		250	37.33
935	X		13.88		5.25		-104.8		0.394		5.31		948		250	37.33
940	X		13.88		5.22		-102.1		0.396		5.01		858		250	37.33
945	X		13.88		5.19		-98.3		0.401		4.73		793		250	37.33
950	X		13.90		5.15		-89.7		0.411		4.80		684		250	37.33
955	X		13.94		5.15		-86.2		0.414		4.78		398		250	37.33
1000	X		13.94		5.14		-84.4		0.411		4.88		297		250	37.33
1005	X		13.92		5.14		-81.2		0.415		4.91		263		250	37.33
1010	X		13.97		5.13		-78.3		0.414		5.02		22		250	37.33
1015	X		13.98		5.12		-74.3		0.414		5.13		192		250	37.33
1020	X		13.92		5.11		-73.2		0.414		5.23		179		250	37.33
1025	X		13.86		5.11		-70.5		0.415		5.22		168		250	37.33
1030	X		13.71		5.10		-68.9		0.416		5.34		123		250	37.33
1035	X		13.87		5.09		-65.6		0.415		5.36		142		250	37.33
1040	X		13.84		5.09		-62.5		0.417		5.38		111		250	37.33
1045	X		13.88		5.09		-60.8		0.415		5.48		106.2		250	37.33
1050	X		13.98		5.09		-58.7		0.413		5.40		109.6		250	37.33
1055	X															
Comments:																

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR				
Date:	12/3/2019				Field Personnel:					
Weather:										
Monitor Well #:	MW-9		Well Depth:	315.35 ft btoc		Screened/Open Interval:	305-315 ft btoc			
Wel Permit #:			Well Diameter:	2 Inches						
PID Readings (ppm):										
Background: 0					Pump Intake Depth: 310 Ft Below TOC					
Beneath Outer Cap: 0					Depth to Water Before Pump Installation: 39.35 Ft below TOC					
Beneath Inner Cap: 0					Make/Model of Pump: Geotech Bladder Pump with Drop Tube					
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1335	X									39.35
1340	X									39.35
1345	X		14.10	6.16	-156.0	0.139	6.83	3.36	200	39.39
1350	X		13.87	5.84	-148.4	0.132	5.77	2.28	200	39.39
1355	X		14.04	5.73	-156.9	0.136	5.04	4.68	200	39.39
1400	X		14.07	5.55	-152.5	0.191	4.27	13.7	200	39.39
1405	X		14.11	5.26	-136.6	0.196	4.27	11.5	200	39.39
1410	X		14.25	5.01	-123.4	0.200	4.29	8.75	200	39.39
1415	X		14.14	4.93	-120.2	0.200	4.30	7.73	200	39.39
1420	X		13.95	4.87	-115.9	0.201	4.29	8.93	200	39.39
1425	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u> Field Personnel:							
Date: _____				Weather: _____							
Monitor Well #: <u>MW-10</u>		Well Depth: <u>283.25 ft btoc</u>		Screened/Open Interval: <u>275-285 ft btoc</u>							
Well Permit #: _____		Well Diameter: <u>2</u> Inches									
PID Readings (ppm): Background: <u>0</u> Beneath Outer Cap: <u>0</u> Beneath Inner Cap: <u>0</u>											
Pump Intake Depth: <u>280</u> Ft Below TOC Depth to Water Before Pump Installation: <u>NA</u> Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>											
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*		
1315	X										
1325	X	11.80		7.04		198.5		8.32		120	42.52
1330	X	12.79		7.07		192.7		8.05		120	42.52
1335	X	13.04		7.08		191.8		7.89		200	42.52
1340	X	13.33		7.07		188.6		7.04		200	42.52
1345	X	13.42		7.07		186.9		6.60		200	42.52
1350	X	13.63		7.08		185.9		6.28		200	42.52
1355	X	13.92		7.09		177.7		5.89		200	42.52
1400	X	13.90		7.07		171.9		6.04		200	42.52
1405	X	13.91		7.23		165.9		5.36		200	42.52
1410	X	13.95		6.97		157.6		4.83		200	42.52
1415	X	13.96		6.85		102.1		4.57		200	42.52
1420	X	13.90		6.81		41.9		3.52		200	42.52
1425	X	13.94		6.79		17.8		3.26		200	42.52
1430	X	13.90		6.79		3.0		3.00		200	42.52
1435	X	13.98		6.77		-8.5		2.88		200	42.52
1440	X	13.96		6.75		-16.0		2.76		200	42.52
1445	X	13.88		6.74		-16.0		2.65		200	42.52
1450	X	13.80		6.72		-21.2		2.70		200	42.52
1455	X	13.91		6.71		-18.6		2.55		200	42.52
1500	X										
Comments: _____											

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  
 $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

**Sheet** \_\_\_\_\_ **of** \_\_\_\_\_

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u> Field Personnel:						
Date:										
Weather:										
Monitor Well #: <u>MW-11S</u>		Well Depth: <u>224.65 ft btoc</u>		Screened/Open Interval: <u>215-225 ft btoc</u>						
Wel Permit #: <u></u>		Well Diameter: <u>2</u> Inches								
PID Readings (ppm):										
Background: <u>0</u>				Pump Intake Depth: <u>220</u> Ft Below TOC						
Beneath Outer Cap: <u>0</u>				Depth to Water Before Pump Installation: <u>38.03</u> Ft below TOC						
Beneath Inner Cap: <u>8</u>				Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>						
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1420										
1425	X		8.78	5.15	-147.7	0.231	2.77	7.13	60	38.03
1430	X		9.89	5.87	-133.8	0.230	3.15	2.63	60	38.03
1435	X		9.85	5.52	-116.4	0.231	3.69	1.81	60	38.03
1440	X		9.44	4.41	-101.6	0.229	4.46	2.64	60	38.03
1450	X		9.12	5.32	-86.6	0.231	5.14	4.52	60	38.03
1455	X		9.07	5.27	-78.7	0.231	569.00	5.4	60	38.03
1500	X		8.92	5.26	-75.3	0.231	5.97	6.15	60	38.03
1505	X		8.74	5.23	-72.4	0.230	6.14	10.67	60	38.03
1510	X		8.62	5.22	-70.3	0.231	6.31	13.5	60	38.03
1515	X		8.53	5.22	-69.0	0.230	6.31	18.2	60	38.03
1520	X		8.40	5.21	-67.0	0.230	6.47	21.9	60	38.03
1525	X		8.45	5.20	-62.0	0.228	6.63	31.9	60	38.03
1530	X		8.58	5.19	-54.1	0.230	7.64	28.0	60	38.03
1535	X		8.59	5.18	-46.3	0.225	7.22	30.3	60	38.03
1540	X		8.63	5.18	-46.3	0.224	7.31	32.0	60	38.03
1545	X		8.65	5.17	-43.3	0.225	7.12	32.3	60	38.03
1550	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company	HDR					
Date:	12/10/2019			Field Personnel:						
Weather:	Overcast; 53 F									
Monitor Well #:	MW-12			Well Depth:	224.45 ft btoc					
Well Permit #:				Well Diameter:	2 Inches					
				Screened/Open Interval: 215-225 ft btoc						
PID Readings (ppm):				Pump Intake Depth: 220 Ft Below TOC						
Background: 0				Depth to Water Before Pump Installation: 35.59 Ft below TOC						
Beneath Outer Cap: 0				Make/Model of Pump: Geotech Bladder Pump with Drop Tube						
Beneath Inner Cap: 0.2										
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	
900	X									
905	X	14.67		7.33	48.7	0.144	8.53	3.65	220	35.59
910	X	14.87		6.36	64.8	0.134	6.38	1.19	220	35.59
915	X	14.86		5.53	81.5	0.129	4.87	86.9	220	35.59
920	X	14.98		5.35	92.2	0.142	4.95	620	220	35.59
925	X	14.98		5.27	97.2	0.143	5.51	656	220	35.59
930	X	14.98		5.21	103.0	0.141	5.66	633	220	35.61
935	X	14.98		5.18	110.1	0.141	5.83	423	220	35.61
940	X	15.00		5.17	115.4	0.140	5.61	112	220	35.61
945	X	15.00		5.17	117.5	0.141	5.60	79	220	35.61
950	X	14.98		5.17	125.6	0.141	5.61	87.7	220	35.61
955	X	14.98		5.17	128.6	0.140	5.58	74.4	240	35.61
1000	X	14.99		5.17	131.3	0.140	5.57	54	240	35.61
1005	X	14.98		5.18	134.8	0.140	5.56	41.6	240	35.61
1010	X	14.96		5.18	137.1	0.140	5.55	34.3	240	35.61
1015	X	14.95		5.19	1383.0	0.141	5.53	31.7	240	35.61
1020	X	14.95		5.19	141.9	0.141	5.50	26.8	240	35.61
1025	X	14.94		5.19	144.3	0.141	5.45	21.2	240	35.61
1030	X	14.94		5.19	146.1	0.141	5.48	21.3	240	35.61
1035	X	14.93		5.20	147.5	0.141	5.49	18.8	240	35.61
1040	X	14.94		5.20	148.8	0.141	5.49	15.5	240	35.61
1045	X	14.94		5.20	148.5	0.141	5.45	15.1	240	35.61
1050	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR pH; ±3% for Specific Conductivity and Temperature;  
 ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>					Company <u>HDR</u>					
Date: <u>12/4/2019</u>					Field Personnel: _____					
Weather: _____										
Monitor Well #: <u>MW-13</u>		Well Depth: <u>208.5 ft btoc</u>		Screened/Open Interval: <u>200-210 ft btoc</u>						
Well Permit #: _____		Well Diameter: <u>2</u> Inches								
PID Readings (ppm): Background: <u>0</u> Beneath Outer Cap: <u>0</u> Beneath Inner Cap: <u>0</u>						Pump Intake Depth: _____ Ft Below TOC Depth to Water Before Pump Installation: _____ Ft below TOC Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>				
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1025	X		12.43	7.73	192.3	0.045	9.10	22.4	200	37.05
1030	X		12.94	7.34	197.8	0.044	8.41	9.96	200	37.05
1035	X		13.10	7.02	199.1	0.050	7.65	886	200	37.05
1040	X		13.25	5.18	253.6	0.206	6.57	Max	200	37.05
1045	X		13.28	5.07	260.7	0.214	6.00	Max	200	37.05
1050	X		13.29	5.17	264.4	0.206	5.61	Max	200	37.05
1055	X		13.37	5.39	257.6	0.184	5.04	Max	200	37.05
1100	X		13.30	5.45	255.0	0.177	4.88	Max	200	37.05
1105	X		13.46	5.49	253.0	0.172	4.70	Max	200	37.05
1110	X		13.57	5.49	252.1	0.172	4.58	1694	200	37.05
1120	X		13.59	5.48	252.4	0.175	9.47	1351	200	37.08
1125	X		13.32	5.44	252.2	0.178	4.74	135	200	37.08
1130	X		13.35	5.42	251.0	0.179	4.60	1094	200	37.08
1135	X		13.80	5.36	252.5	0.187	4.35	921	200	37.08
1140	X		13.75	5.34	252.8	0.190	4.35	718	200	37.08
1145	X		13.54	5.27	256.0	0.198	4.32	350	200	37.08
1150	X		13.52	5.26	257.4	0.200	4.35	267	200	37.08
1155	X		13.39	5.18	260.9	0.207	4.28	243	200	37.08
1200	X		13.39	5.16	262.8	0.210	4.27	176	200	37.08
1205	X		13.47	5.12	264.4	0.213	4.22	167	200	37.05
1210	X		13.36	5.09	266.3	0.215	4.17	157	200	37.05
1215	X		13.4	5.05	268.3	0.220	4.07	138	200	37.05
1220	X		13.45	5.01	270.9	0.223	4.04	114	200	37.05
1225	X		13.51	5.00	272.4	0.225	4.05	104.1	200	37.05
1230	X		2 hours of Purging reached							
Comments: _____										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR					
Date:	11/26/2019				Field Personnel:						
Weather:											
Monitor Well #:	MW-14		Well Depth:	200.35 ft btoc		Screened/Open Interval:	185-205 ft btoc				
Well Permit #:			Well Diameter:	2 Inches							
PID Readings (ppm):											
Background: 0					Pump Intake Depth: 195 Ft Below TOC						
Beneath Outer Cap: 0					Depth to Water Before Pump Installation: 39.36 Ft below TOC						
Beneath Inner Cap: 0.8					Make/Model of Pump: Geotech Bladder Pump with Drop Tube						
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1235	X									200	39.36
1245	X		16.02	5.34	197.3	0.359	5.78	5.78	200	39.36	
1250	X		15.70	5.07	210.8	0.821	5.06	1247	200	39.36	
1255	X		15.64	4.95	216.8	1.093	6.88	1289	200	39.36	
1300	X		15.60	4.90	224.3	1.101	7.15	1422	200	39.36	
1320	X		15.43	4.86	233.2	1.096	7.02	1042	200	39.36	
1325	X		15.46	4.86	234.7	1.096	6.97	924	200	39.36	
1330	X		15.47	4.85	235.8	1.096	6.82	811	200	39.36	
1335	X		15.42	4.54	237.5	1.099	6.90	762	200	39.36	
1340	X		15.36	4.84	238.6	1.100	6.92	238	200	39.36	
1345	X		15.36	4.84	238.6	1.099	6.89	148	200	39.36	
1350	X		15.49	4.83	237.6	1.100	6.76	128	200	39.36	
1355	X		15.46	4.83	237.8	1.101	6.75	105.5	200	39.36	
1400	X		15.54	4.83	237.1	1.102	6.73	103.3	200	39.36	
1405	X		15.41	4.83	237.3	1.103	6.74	108.5	200	39.36	
1445	X										
Comments:											

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company		HDR								
Date:	12/9/2019				Field Personnel:										
Weather:															
Monitor Well #: MW-15			Well Depth: 204.4 ft btoc			Screened/Open Interval: 185-205 ft btoc									
Wel Permit #: _____			Well Diameter: 2 Inches												
PID Readings (ppm):															
Background: 0						Pump Intake Depth: 195 Ft Below TOC									
Beneath Outer Cap: 0						Depth to Water Before Pump Installation: 39.10 Ft below TOC									
Beneath Inner Cap: 0						Make/Model of Pump: Geotech Bladder Pump with Drop Tube									
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)
			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1255	X														
1310	X		12.46		5.26		301.3		0.123		8.23		18.4	200	
1315	X		12.63		5.21		309.5		0.123		8.53		47.1	240	
1320	X		12.75		5.25		313.7		0.288		6.73		234	240	
1325	X		12.75		5.27		316.0		0.313		6.68		256	240	
1330	X		12.75		5.27		320.2		0.324		6.88		645	240	
1335	X		12.75		5.27		323.2		0.329		7.06		661	240	
1340	X		12.75		5.28		327.3		0.333		7.34		757	240	
1345	X		12.73		5.29		332.9		0.333		7.61		694	240	
1350	X		12.74		5.29		339.6		0.328		7.63		604	240	
1400	X		12.76		5.30		343.0		0.322		7.74		337	240	
1405	X		12.75		5.31		345.6		0.317		7.75		264	240	
1410	X		12.74		5.31		348.8		0.315		7.77		305	240	
1415	X		12.74		5.32		352.2		0.308		7.86		364	240	
1420	X		12.74		5.32		353.1		0.309		7.86		235	240	
1425	X		12.77		5.32		354.7		0.308		7.87		219	240	
1430	X		12.75		5.32		357.4		0.306		7.74		231	240	
1435	X													39.10	
Comments:															

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 FOR Ph; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site: <u>New Cassel</u>				Company <u>HDR</u>						
Date: <u>12/3/2019</u>				Field Personnel: _____						
Weather: _____										
Monitor Well #: <u>MW-16D</u>		Well Depth: <u>285.55 ft btoc</u>		Screened/Open Interval: <u>275-285 ft btoc</u>						
Well Permit #: _____		Well Diameter: <u>2</u> Inches								
<b>PID Readings (ppm):</b> Background: <u>0</u> Pump Intake Depth: <u>280</u> Ft Below TOC Beneath Outer Cap: <u>0</u> Depth to Water Before Pump Installation: <u>37.36</u> Ft below TOC Beneath Inner Cap: <u>0</u> Make/Model of Pump: <u>Geotech Bladder Pump with Drop Tube</u>										
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
950	X									37.36
955	X									37.44
1000	X		<u>4.64</u>	<u>9.05</u>	<u>256.0</u>	<u>0.046</u>	<u>11.68</u>	<u>126</u>	<u>300</u>	<u>37.40</u>
1005	X		<u>11.02</u>	<u>5.54</u>	<u>223.4</u>	<u>0.212</u>	<u>7.28</u>	<u>39.4</u>	<u>300</u>	<u>37.40</u>
1010	X		<u>10.88</u>	<u>5.36</u>	<u>236.0</u>	<u>0.195</u>	<u>6.08</u>	<u>18.4</u>	<u>300</u>	<u>37.40</u>
1015	X		<u>10.74</u>	<u>5.23</u>	<u>244.6</u>	<u>0.190</u>	<u>4.50</u>	<u>254</u>	<u>300</u>	<u>37.40</u>
1020	X		<u>10.75</u>	<u>5.18</u>	<u>230.2</u>	<u>0.188</u>	<u>3.58</u>	<u>189</u>	<u>300</u>	<u>37.40</u>
1025	X		<u>10.71</u>	<u>5.17</u>	<u>240.8</u>	<u>0.189</u>	<u>3.57</u>	<u>145</u>	<u>300</u>	<u>37.40</u>
1030	X		<u>10.71</u>	<u>5.15</u>	<u>242.9</u>	<u>0.187</u>	<u>3.46</u>	<u>108</u>	<u>300</u>	<u>37.40</u>
1035	X		<u>10.62</u>	<u>5.16</u>	<u>244.6</u>	<u>0.190</u>	<u>3.33</u>	<u>51.4</u>	<u>300</u>	<u>37.40</u>
1040	X		<u>10.62</u>	<u>5.15</u>	<u>246.2</u>	<u>0.189</u>	<u>3.38</u>	<u>33.8</u>	<u>300</u>	<u>37.40</u>
1045	X		<u>10.62</u>	<u>5.15</u>	<u>245.1</u>	<u>0.189</u>	<u>3.09</u>	<u>19.2</u>	<u>300</u>	<u>37.40</u>
1050	X		<u>10.63</u>	<u>5.13</u>	<u>248.2</u>	<u>0.188</u>	<u>3.04</u>	<u>10.89</u>	<u>300</u>	<u>37.40</u>
1055	X		<u>10.66</u>	<u>5.11</u>	<u>250.9</u>	<u>0.188</u>	<u>2.82</u>	<u>6.54</u>	<u>300</u>	<u>37.40</u>
1100	X		<u>10.68</u>	<u>5.11</u>	<u>251.4</u>	<u>0.188</u>	<u>3.07</u>	<u>4.71</u>	<u>300</u>	<u>37.40</u>
1105	X		<u>10.68</u>	<u>5.09</u>	<u>252.9</u>	<u>0.187</u>	<u>2.82</u>	<u>3.59</u>	<u>300</u>	<u>37.40</u>
1106	X									
<b>Comments:</b>										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel			Company	HDR											
Date:	12/9/2019			Field Personnel:												
Weather:																
Monitor Well #:	MW-17D		Well Depth:	287.8 ft btoc		Screened/Open Interval:	275-285 ft btoc									
Wel Permit #:			Well Diameter:	2 Inches												
PID Readings (ppm):																
Background: 0				Pump Intake Depth: 280 Ft Below TOC												
Beneath Outer Cap: 0				Depth to Water Before Pump Installation: Ft below TOC												
Beneath Inner Cap: 4.9				Make/Model of Pump: Geotech Bladder Pump with Drop Tube												
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)		Redox Potential (mv)		Specific Conductivity (mS/cm)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth To Water (ft below TOC)	
1000	X			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1005	X		12.39			5.51		189.1		0.115		6.77		3.1	220	42.69
1010	X		12.54			5.21		216.2		0.101		4.36		4.72	220	42.69
1025	X		12.55			5.11		232.2		0.112		4.26		40.4	200	40.70
1030	X		12.56			5.04		237.1		0.137		4.02		127	200	40.70
1035	X		12.56			4.88		242.1		0.173		2.88		118	200	40.70
1040	X		12.57			4.98		243.3		0.177		2.67		128	200	40.70
1045	X		12.58			4.98		243.3		0.179		2.33		135	200	40.70
1050	X		12.59			4.98		244.0		0.178		2.11		92.3	200	40.70
1100	X		12.58			4.98		243.7		0.175		1.93		108.6	200	40.70
1105	X		12.60			4.98		242.7		0.172		1.77		101.4	200	40.70
1110	X		12.61			4.98		242.6		0.171		1.72		54.5	200	40.70
1115	X		12.60			4.98		241.1		0.168		1.63		67	200	40.70
1120	X		12.60			4.98		241.1		0.168		1.58		61.6	200	40.70
1125	X		12.59			4.98		240.0		0.167		1.50		59.5	200	40.70
1130	X		12.58			4.97		238.3		0.166		1.45		46.4	200	40.70
1135	X		12.57			4.97		238.9		0.166		1.42		49.0	200	40.70
1140	X		12.58			4.97		238.9		0.166		1.38		45.5	200	40.70
1145	X															

**Comments:**  
At 1010 the flow rate was reduced to limit the drawdown

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.



## Well Sampling Log

Sheet \_\_\_\_\_ of \_\_\_\_\_

Site:	New Cassel				Company	HDR				
Date:	12/9/2019				Field Personnel:					
Weather:										
Monitor Well #:	MW-17S		Well Depth:	227.7 ft btoc		Screened/Open Interval:	215-225 ft btoc			
Well Permit #:			Well Diameter:	2 Inches						
PID Readings (ppm):										
Background: 0				Pump Intake Depth: 220 Ft Below TOC						
Beneath Outer Cap: 0				Depth to Water Before Pump Installation: _____ Ft below TOC						
Beneath Inner Cap: 0				Make/Model of Pump: Geotech Bladder Pump with Drop Tube						
TIME	Purging	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)
1015	X									
1025	X		12.65	7.61	-5.4	0.152	22.64	4.04	140	42.63
1035	X		12.73	6.29	8.3	0.146	7.84	623	140	42.63
1040	X		12.74	6.06	10.6	0.150	7.50	1742	140	42.63
1050	X		12.76	5.77	20.3	0.152	9.44	787	140	42.63
1100	X		12.78	5.70	21.0	0.153	9.50	19	140	42.63
1105	X		12.51	5.68	22.6	0.155	9.56	20	140	42.63
1110	X		12.30	5.66	23.1	0.156	9.61	39.1	140	42.63
1115	X		12.81	5.64	27.6	0.161	9.80	38.7	140	42.63
1120	X		12.81	5.63	28.8	0.163	9.86	19.9	140	42.63
1125	X		12.80	5.64	28.7	0.163	9.57	21	140	42.63
1130	X		12.79	5.62	29.6	0.163	9.77	15.8	140	42.63
1135	X		12.79	5.62	31.0	0.164	9.76	14.6	140	42.63
1140	X		12.79	5.62	37.1	0.163	9.90	13.1	140	42.63
1145	X		12.31	5.62	35.1	0.163	10.02	13.7	140	42.63
1150	X		12.82	5.62	39.7	0.163	10.36	12.7	140	42.63
1155	X									
Comments:										

\* INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  FOR Ph;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mv for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity.

# Appendix C

## DESA/CLP Analytical Data Packages



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2  
DESA/HWSB/HWSS  
2890 Woodbridge Avenue, Edison, NJ 08837

**EXECUTIVE NARRATIVE**

**Case No.:** 48602

**Site:** New Cassel/Hicksville Ground Water Contamination

**Number of Samples:** 13 (Water)

**Analysis:** TVOA

**SDG No.:** BFE08

**Laboratory:** Chemtech Consulting Group

**Sampling dates:** 11/25/2019-11/26/2019

**Validation SOP:** HW-34A (Rev 1)

**QAPP:**

**Contractor:** HDR

**Reference:** DCN: 147-10163267, October 2019

**SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated. "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

**Critical Findings:**

None

**Major Findings:**

Samples BFE08, BFE09, BFE10, BFE11, BFE12, BFE12DL, BFE13, BFE14, BFE15 and BFE19 have analytes that have been qualified "J", "J+" or "J-".

**Minor Findings:**

One or more analytes in one or more samples are qualified "J" due to results between MDL and CRQL.

**COMMENTS:** One or more detected and non-detected analytes are above the project action levels for one or more samples in the analysis.

**Reviewer Name(s):** Reginald St-Juste

**Approver's Signature:**

**Name:** Narendra Kumar

**Date:** 02/06/2020

**Affiliation:** USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J+	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
J-	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34A (Revision 1) September 2016, USEPA Region II for the evaluation of Trace Volatile organic data generated through Statement of Work SOM02.2, and any future editorial revisions of SOM02.2 has been applied. Data have been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi-Automated Screening Results Report. Tentatively Identified Compounds (TICs) for TVOA organic fraction is not validated.

#### 1. HOLDING TIME AND PRESERVATION:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as unusable, "R". Use professional judgment to qualify detects and non-detects for aqueous sample whose temperature is above 6 degrees or below 2-degree C Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMC's)

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery limits were outside Table 6 of the SOP HW 34A (Rev 1), qualifications were applied as per Table 7 of the SOP HW 34A (Rev 1) to all the samples and analytes as shown below.

The following samples have DMC/surrogate percent recoveries less than the primary minimum criteria but greater than or equal to the expanded minimum criteria. Detects are qualified as estimated J-. Non-detects are qualified as estimated UJ.

**1,1-Dichloroethene-d2** BFE15, BFE18DL and BFE19  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene and 1,1-Dichloroethene

**Toluene-d8** BFE09, BFE12DL and BFE15  
Trichloroethene, Toluene, Tetrachloroethene, Ethylbenzene, o-Xylene, m,p-Xylene, Styrene and Isopropylbenzene

The following samples have DMC/surrogate percent recoveries greater than the primary maximum criteria. Detects are qualified as estimated J+. Non-detects are not qualified.

**1,1-Dichloroethene-d2** BFE11, BFE12, BFE13, BFE14 and BFE17  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene and 1,1-Dichloroethene



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**2-Butanone-d5 BFE17**  
Acetone and 2-Butanone

**3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:**

**MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other QC criteria for additional qualification of data.**

Not applicable.

**4. BLANK CONTAMINATION:**

**Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as per Table 5 of SOP HW-34A (Rev 1).**

**A) Method blank contamination:**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated Trip blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQLs.

**Acetone** BFE13DL, BFE18DL, BFE19, BFE19DL, BFE20 and BFE20DL

**Methylene chloride** BFE20 and BFE20DL

**B) Field or rinse blank contamination: BFE08, BFE09, BFE15 and BFE16**

No additional qualification is required due to field blank contamination.

**C) Trip blank contamination: BFE10 and BFE17**

No problems were found for this criterion

**D) Storage Blank associated with TVOA samples only:**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated Trip blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQLs.

**Acetone** BFE11, BFE12, BFE12DL, BFE13 and BFE18



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**Methylene chloride BFE13 and BFE14**

**E) Tentatively Identified Compounds:**

Tentatively Identified Compounds (TICs) for TVOA organic fraction are not validated.

**5. MASS SPECTROMETER TUNING:**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum RRF criteria as listed in Table 2 of SOP HW 34A (Rev 1). If RRF is less than minimum RRF specified in Table 2 for all target analytes, use professional judgment and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration.

Percent RSD must be less than maximum %RSD in Table 2 of SOP HW 34A (Rev 1) for all target analytes. For the opening or closing CCV %D must be within the inclusive opening or closing maximum %D limits as listed in Table 2 of SOP HW 34A (Rev 1) for all Target compounds. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and Non-



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detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, detects may be qualified as "J" and use professional judgment to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.

The following samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detects are qualified as estimated J. Non-detects are not qualified.

**1,2,4-trichlorobenzene** BFE13 and BFE20

**1,2,3-trichlorobenzene** BFE13 and BFE20

The following samples are associated with an opening or closing CCV % Difference exceeding criteria. Detects are qualified as estimated J. Non-detects are qualified as estimated UJ.

**Chloroform** BFE08, BFE09, BFE10, BFE11, BFE12, BFE13 and BFE 14

**7. INTERNAL STANDARDS PERFORMANCE GC/MS:**

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range as specified in Table 9 of SOP HW 34A (Rev 1) of the associated continuing calibration internal standard area. The retention time of the internal standards must be within the range as specified in Table 9 of SOP HW 34A (Rev 1). If the area count is greater than, all positive results quantitated using that IS are qualified as estimated "J-", and non-detects are not qualified. If the area count is less than the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated "J+" and all non-detects are qualified "R".

If an internal standard retention time were not met as specified in Table 9 of SOP HW 34A (Rev 1), the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**8. FIELD DUPLICATES:**

The pair of samples duplicate was not identified in this SDG.

**9. COMPOUND IDENTIFICATION:**

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within a window of 0.06 RRT units of the standard compound and have ion spectra which has a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false



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**positive identifications. Qualifications were applied to the samples and analytes as shown below.**

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**

Initial calibration percent relative standard deviation (%RSD) is outside criteria for 1,2,4-trichlorobenzene and 1,2,3-trichlorobenzene.

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

None

**13. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.

The following diluted samples were only used for one or more analytes:  
BFE11DL, BFE12DL, BFE13DL, BFE14DL, BFE18DL, BFE19DL and BFE20DL

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE08	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 16:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	3.5	J	ug/L	3.5	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
unknown-01	TIC	1.3	J	ug/L	1.3	J	1.0	YES	NV
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE09	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 08:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	4.0	J	ug/L	4.0	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE10	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 08:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE11	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-1	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 12:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	49		ug/L	49	D	10.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.87		ug/L	0.87		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.3	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.25	J+	ug/L	0.25	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.56		ug/L	0.56		1.0	YES	S3VEM
1,1-Dichloroethane	Target	9.5		ug/L	9.5		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	54		ug/L	54	D	10.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	2.1	J	ug/L	2.1		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	4.1		ug/L	4.1		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.23	J	ug/L	0.23	J	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.33	J	ug/L	0.33	J	1.0	YES	S3VEM
Trichloroethene	Target	140		ug/L	140	D	10.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.30	J	ug/L	0.30	J	1.0	YES	S3VEM
Tetrachloroethene	Target	48		ug/L	48	D	10.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE12	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-2	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 12:35:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	35		ug/L	35	D	5.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.60		ug/L	0.60		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.23	J+	ug/L	0.23	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.88		ug/L	0.88		1.0	YES	S3VEM
1,1-Dichloroethane	Target	13		ug/L	13		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	19		ug/L	19	D	5.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	1.5	J	ug/L	1.5		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	5.4		ug/L	5.4		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.21	J	ug/L	0.21	J	1.0	YES	S3VEM
Trichloroethene	Target	61	J-	ug/L	61	D	5.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.19	J	ug/L	0.19	J	1.0	YES	S3VEM
Tetrachloroethene	Target	30	J-	ug/L	30	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE13	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-3	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 15:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	81		ug/L	81	D	20.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.60		ug/L	0.60		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	3.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.32	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.22	J+	ug/L	0.22	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	38		ug/L	38	D	20.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	9.5	J+	ug/L	9.5		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.81	J	ug/L	0.81		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	2.0		ug/L	2.0		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.17	J	ug/L	0.17	J	1.0	YES	S3VEM
1,2-Dichloroethane	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
Trichloroethene	Target	110		ug/L	110	D	20.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50		ug/L	0.50		1.0	YES	S3VEM
Tetrachloroethene	Target	14		ug/L	14		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE14	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-4	pH: 1.0	Sample Date: 11/25/2019	Sample Time: 14:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	62		ug/L	62	D	10.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	10		ug/L	10		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.15	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	2.0		ug/L	2.0		1.0	YES	S3VEM
1,1-Dichloroethane	Target	31		ug/L	31	D	10.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	11	J+	ug/L	11		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.92	J	ug/L	0.92		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	18		ug/L	18		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.56		ug/L	0.56		1.0	YES	S3VEM
Trichloroethene	Target	76		ug/L	76	D	10.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
Tetrachloroethene	Target	31		ug/L	31	D	10.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.10	J	ug/L	0.10	J	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE15	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 15:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.7	J	ug/L	2.7	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Sulfur dioxide	TIC	23	JN	ug/L	23	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE16	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 08:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	3.4	J	ug/L	3.4	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Sulfur dioxide	TIC	15	JN	ug/L	15	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE17	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 08:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Sulfur dioxide	TIC	7.0	JN	ug/L	7.0	JN	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE18	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EW-1B	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 10:15:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	1.7		ug/L	1.7		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.21	J	ug/L	0.21	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.49	J	ug/L	0.49	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	2.2		ug/L	2.2		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.87		ug/L	0.87		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.35	J	ug/L	0.35	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	5.8		ug/L	5.8		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	38		ug/L	38	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Sulfur dioxide	TIC	2.7	JN	ug/L	2.7	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE19	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EW-1C	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 13:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.5	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.45	J	ug/L	0.45	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	8.3	J-	ug/L	8.3		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.29	J	ug/L	0.29	J	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	33		ug/L	33	D	5.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butenal, (E)-	TIC	0.53	JN	ug/L	0.53	JN	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE20	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-14	pH: 1.0	Sample Date: 11/26/2019	Sample Time: 14:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Chloromethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Vinyl chloride	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Bromomethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Chloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Trichlorofluoromethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1-Dichloroethene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Acetone	Target	50	U	ug/L	26	JB	10.0	YES	S3VEM
Carbon disulfide	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Methyl Acetate	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Methylene chloride	Target	5.0	U	ug/L	6.1	B	10.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Methyl tert-butyl Ether	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1-Dichloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
2-Butanone	Target	50	U	ug/L	50	U	10.0	YES	S3VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1,1-Trichloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Cyclohexane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Carbon tetrachloride	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Benzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2-Dichloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Trichloroethene	Target	9.9		ug/L	9.9		10.0	YES	S3VEM
Methylcyclohexane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2-Dichloropropane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Bromodichloromethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
4-Methyl-2-pentanone	Target	50	U	ug/L	50	U	10.0	YES	S3VEM
Toluene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1,2-Trichloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Tetrachloroethene	Target	160		ug/L	160	D	20.0	YES	S3VEM
2-Hexanone	Target	50	U	ug/L	50	U	10.0	YES	S3VEM
Dibromoform	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2-Dibromoethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Chlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Ethylbenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
o-Xylene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
m,p-Xylene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Styrene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Bromoform	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Isopropylbenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,3-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,4-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2-Dichlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	5.0	U	ug/L	5.0	U	10.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	10.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK17	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.6	J	ug/L	2.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.26	J	ug/L	0.26	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK18	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.3	J	ug/L	2.3	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.53		ug/L	0.53		1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK20	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.8	J	ug/L	1.8	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK33	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK34	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE08**

**Lab Name: Chemtech Consulting Group**

Sample Number: VHBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH: 1.0	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.8	J	ug/L	1.8	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.20	J	ug/L	0.20	JB	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE08

Lab Name: Chemtech Consulting Group



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**EXECUTIVE NARRATIVE**

**Case No.:** 48602

**Site:** New Cassel/Hicksville GW Contamination

**Number of Samples:** 14 (Water)

**Analysis:** TVOA

**SDG No.:** BFE21

**Laboratory:** Chemtech Consulting Group

**Sampling date:** 12/2/19-12/3/19

**Validation SOP:** HW-34 (Rev.1)

**QAPP:**

**Contractor:** HDR

**Reference:** DCN 147-10163267, October 2019

**SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated. "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

**Critical Findings:**

None

**Major Findings:**

The following samples have analytes that have been qualified J, J+ or J-; BFE25, BFE28, BFE31RE, BFE32, BFE33, BFE34RE

**Minor Findings:**

One or more analytes in one or more samples are qualified "J" due to results between MDL and CRQL.

**COMMENTS:** One or more detected and non-detected analytes exceeded the project action levels in one or more samples.

**Reviewer Name(s):** Israel Okwuonu

**Approver's Signature:**

**Date:** 02/06/2020

**Name:** Narendra Kumar

**Affiliation:** USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J+	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
J-	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34A (Rev. 1) September, 2016, USEPA Region II for the evaluation of Trace Volatile organic data generated through Statement of Work SOM02.2, and any future editorial revisions of SOM02.2, has been applied. Data have been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi-Automated Screening Results Report. Tentatively Identified Compounds (TICs) for TVOA organic fraction is not validated.

#### 1. HOLDING TIME AND PRESERVATION:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as unusable, "R". Use professional judgment to qualify detects and non-detects for aqueous sample whose temperature is above 6 degree or below 2 degree C Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMC's):

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery limits were outside Table 6 of the SOP HW 34A (Rev 1), qualifications were applied as per Table 7 of the SOP HW 34A (Rev. 1) to all the samples and analytes as shown below.

The following sample has DMC/surrogate percent recoveries less than the primary minimum criteria but greater than or equal to the expanded minimum criteria. Detects are qualified as estimated J-. Non-detects are qualified as estimated UJ.

**1,1-Dichloroethene-d2 BFE28**  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, 1,1-Dichloroethene

The following samples have DMC/surrogate percent recoveries greater than the primary maximum criteria. Detects are qualified as estimated J+. Non-detects are not qualified.

**1,1-Dichloroethene-d2 BFE32, BFE33**  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, 1,1-Dichloroethene

**1,2-Dichlorobenzene-d4 BFE31RE, BFE34RE**  
Chlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1, 2-Dichlorobenzene, 1, 2, 4-Trichlorobenzene, 1,2,3-Trichlorobenzene

#### 3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:



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**MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other QC criteria for additional qualification of data.**

Not applicable.

**4. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as per Table 5 of SOP HW-34A (Rev 1).

**A) Method blank contamination:**

No additional qualification is required due to method blank contamination.

**B) Field or rinse blank contamination:** BFE21, BFE22, BFE28, BFE29

No additional qualification is required due to field blank contamination.

**C) Trip blank contamination:** BFE23, BFE30

No additional qualification is required due to trip blank contamination.

**D) Storage Blank associated with VOA samples only:**

The following samples have analyte results reported less than 2x the CRQLs. The associated storage blank results are less than 2x the CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

**Acetone** BFE24, BFE24DL, BFE25, BFE25DL, BFE26, BFE27, BFE27DL, BFE31, BFE32, BFE32DL, BFE33, BFE33DL, BFE34, BFE34RE

**Methylene chloride** BFE24DL, BFE27DL

**E) Tentatively Identified Compounds:**

Tentatively Identified Compounds (TICs) for TVOA organic fraction are not validated.

**5. MASS SPECTROMETER TUNING:**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity.



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These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial, ICV and continuing calibration should meet the minimum RRF criteria as listed in Table 2 of SOP HW 34A (Rev. 1). If RRF is less than minimum RRF specified in Table 2 for all target analytes, use professional judgment and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R".

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration.

Percent RSD must be less than maximum %RSD in Table 2 of SOP HW 34A (Rev. 1) for all target analytes. For the opening or closing CCV %D must be within the inclusive opening or closing maximum %D limits as listed in Table 2 of SOP HW 34A (Rev. 1) for all Target compounds. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and Non-detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, detects may be qualified as "J" and use professional judgment to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.

**The following analytes in the samples shown were qualified for %RSD and %D:**

The following samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detects are qualified as estimated J. Non-detects are not qualified.



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**1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene** BFE21, BFE22, BFE23, BFE24, BF24DL, BFE25, BFE26, BFE27, BF27DL, BFE29, BFE30, BFE31, BFE32, BFE33, BFE34

**7. INTERNAL STANDARDS PERFORMANCE GC/MS:**

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range as specified in Table 9 of SOP HW 34A (Rev. 1) of the associated continuing calibration internal standard area. The retention time of the internal standards must be within the range as specified in Table 9 of SOP HW 34A (Rev. 1). If the area count is greater than, all positive results quantitated using that IS are qualified as estimated “J-”, and non-detects are not qualified. If the area count is less than the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated “J+” and all non-detects are qualified “R”.

If an internal standard retention time were not met as specified in Table 9 of SOP HW 34A (Rev. 1), the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below. Qualifications were applied to the samples and analytes as shown below.

The following samples have internal standard area response greater than or equal to expanded minimum criteria and less than primary minimum criteria. Detects are qualified as estimated J+. Non-detects are qualified as estimated UJ.

**1,4-Dichlorobenzene-d4** BFE25, BFE31, BF31RE, BFE34, BFE34RE  
Bromoform, 1, 3-Dichlorobenzene, 1, 4-Dichlorobenzene, 1, 2-Dichlorobenzene, 1, 2-Dibromo-3-chloropropane, 1, 2, 4-Trichlorobenzene, 1,2,3-Trichlorobenzene

**8. FIELD DUPLICATES: BFE24/BFE27**

No problems were found for this criterion.

**9. COMPOUND IDENTIFICATION:**

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within a window of 0.06 RRT units of the standard compound and have ion spectra which has a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**



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Percent Relative Standard Deviation (%RSD) fell outside the contractual limit in the initial calibration for 1,2,4-Trichlorobenzene and 1,2,3-Trichlorobenzene.

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

None

**13. DILUTIONS, RE-EXTRactions & REANALYSIS:**

**Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.**

The following initial sample results were not used; BFE31, BFE34

The following diluted sample results were used for one or more analytes; BFE24DL, BFE25DL, BFE27DL, BFE32DL, BFE33DL

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE21	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 17:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.0	J	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE22	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 09:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE23	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 09:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE24	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FSMW-13C	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 14:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
1,1-Dichloroethene	Target	10		ug/L	10		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.97		ug/L	0.97		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.5	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.26	J	ug/L	0.26	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.91		ug/L	0.91		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	34		ug/L	34	D	20.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	6.2		ug/L	6.2		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	1.3		ug/L	1.3		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	4.4		ug/L	4.4		1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	200		ug/L	200	D	20.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	45		ug/L	45	D	20.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE25	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FSMW-13B	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 16:25:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	0.98	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.69		ug/L	0.69		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	1.3		ug/L	1.3		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	26		ug/L	26	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE26	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FSMW-14C	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 16:55:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.89		ug/L	0.89		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.19	J	ug/L	0.19	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.19	J	ug/L	0.19	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	3.5		ug/L	3.5		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.91		ug/L	0.91		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.17	J	ug/L	0.17	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.95		ug/L	0.95		1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	20		ug/L	20		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	5.4		ug/L	5.4		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE27	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FSMW-13C	pH: 1.0	Sample Date: 12/02/2019	Sample Time: 14:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
1,1-Dichloroethene	Target	9.9		ug/L	9.9		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.95		ug/L	0.95		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.3	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.23	J	ug/L	0.23	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.90		ug/L	0.90		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	32		ug/L	32	D	20.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	6.2		ug/L	6.2		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	1.3		ug/L	1.3		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	4.3		ug/L	4.3		1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	190		ug/L	190	D	20.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	44		ug/L	44	D	20.0	YES	S3VEM
2-Hexanone	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE28	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 08:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.9	J	ug/L	1.9	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE21

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Sulfur dioxide	TIC	1.0	JN	ug/L	1.0	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE29	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 08:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.1	J	ug/L	2.1	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE30	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 7.0	Sample Date: 12/03/2019	Sample Time: 08:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE31	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-16S	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 11:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.61		ug/L	0.61		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE32	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-16D	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 11:06:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	18	J+	ug/L	18		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	1.8		ug/L	1.8		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.2	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.31	J+	ug/L	0.31	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.90		ug/L	0.90		1.0	YES	S3VEM
1,1-Dichloroethane	Target	4.2		ug/L	4.2		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	23		ug/L	23	D	10.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	5.6		ug/L	5.6		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.14	J	ug/L	0.14	J	1.0	YES	S3VEM
Trichloroethene	Target	53		ug/L	53	D	10.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	120		ug/L	120	D	10.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE33	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-9	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 14:25:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	18		ug/L	18	D	10.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	4.2		ug/L	4.2		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.3	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.13	J+	ug/L	0.13	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.55		ug/L	0.55		1.0	YES	S3VEM
1,1-Dichloroethane	Target	3.3		ug/L	3.3		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	12	J+	ug/L	12		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.62		ug/L	0.62		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	7.5		ug/L	7.5		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.10	J	ug/L	0.10	J	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.33	J	ug/L	0.33	J	1.0	YES	S3VEM
Trichloroethene	Target	140		ug/L	140	D	10.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.16	J	ug/L	0.16	J	1.0	YES	S3VEM
Tetrachloroethene	Target	29		ug/L	29	D	10.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE34	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EW-2B	pH: 1.0	Sample Date: 12/03/2019	Sample Time: 17:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.88		ug/L	0.88		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.80		ug/L	0.80		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.55		ug/L	0.55		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	5.9		ug/L	5.9		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	2.7		ug/L	2.7		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK19	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.6	J	ug/L	1.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.25	J	ug/L	0.25	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK20	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.8	J	ug/L	1.8	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK21	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.7	J	ug/L	1.7	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.20	J	ug/L	0.20	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK23	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.41	J	ug/L	0.41	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK24	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.6	J	ug/L	1.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.38	J	ug/L	0.38	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK30	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.22	J	ug/L	0.22	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE21**

**Lab Name: Chemtech Consulting Group**

Sample Number: VHBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH: 1.0	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.8	J	ug/L	2.8	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.20	J	ug/L	0.20	JB	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE21

Lab Name: Chemtech Consulting Group



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**EXECUTIVE NARRATIVE**

**Case No.:** 48602

**Site:** New Cassel/Hicksville GW Contamination

**Number of Samples:** 18 (Water)

**Analysis:** TVOA

**SDG No.:** BFE35

**Laboratory:** Chemtech Consulting Group

**Sampling dates:** 12/04/2019-12/06/2019

**Validation SOP:** HW-34A (Rev 1)

**QAPP:**

**Contractor:** HDR

**Reference:** DCN 147-10163267, October 2019

**SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated. "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

**Critical Findings:**

None.

**Major Findings:**

The following samples have analytes that have been qualified "J", "J+" or "J-".

**TVOA:** BFE35, BFE37, BFE43, BFE44, BFE48, BFE49, BFE40, BFE41, BFE46

**Minor Findings:**

One or more analytes in one or more samples are qualified "J" due to results between MDL and CRQL.

**COMMENTS:** One or more detected and non-detected analytes exceeded the project action levels in one or more samples.

**Reviewer Name(s):** Archana Mirle

**Approver's Signature:**

**Date:** 02/07/2020

**Name:** Narendra Kumar

**Affiliation:** USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J+	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
J-	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34A (Revision 1) September 2016, USEPA Region II for the evaluation of Trace Volatile organic data generated through Statement of Work SOM02.2, and any future editorial revisions of SOM02.2 has been applied. Data have been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi-Automated Screening Results Report. Tentatively Identified Compounds (TICs) for TVOA organic fraction is not validated.

#### 1. HOLDING TIME AND PRESERVATION:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as unusable, "R". Use professional judgment to qualify detects and non-detects for aqueous sample whose temperature is above 6 degrees or below 2-degree C Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMC's)

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery limits were outside Table 6 of the SOP HW 34A (Rev 1), qualifications were applied as per Table 7 of the SOP HW 34A (Rev 1) to all the samples and analytes as shown below.

The following samples have one or more DMC/surrogate recovery values less than the primary lower limit but greater than or equal to the expanded lower limit of the criteria window. Detected compounds are qualified J-. Non-detected compounds are qualified UJ.

1,1-Dichloroethene-d2 BFE35, BFE37, BFE38DL, BFE40DL2, BFE41DL2, BFE43, BFE48, BFE49  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, 1,1-Dichloroethene

The following samples have DMC/surrogate recoveries above the upper limit of the criteria window. Detected compounds are qualified J+. Non-detected compounds are not qualified.

1,1-Dichloroethene-d2 BFE40, BFE41, BFE46  
trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, 1,1-Dichloroethene

#### 3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:

MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with



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other QC criteria for additional qualification of data.

Not applicable.

**4. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as per Table 5 of SOP HW-34A (Rev 1).

**A) Method blank contamination:**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated method blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQL.

**Acetone** BFE39, BFE45, BFE47, BFE51, BFE52

**Methylene chloride** BFE40

The following trace volatile samples has common contaminant analyte concentrations reported greater than 2x the CRQL and less than 4x the CRQL. The associated method blank has common contaminant analyte concentration less than 2x the CRQL. Concentrations of the sample has been reported with an U.

**Methylene chloride** BFE41

**B) Field or rinse blank contamination: BFE36, BFE43, BFE49, BFE35, BFE42, BFE48**

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated field blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQL.

**Acetone** BFE38, BFE40, BFE41, BFE46

The following trace volatile samples has contaminant analyte concentrations reported greater than the CRQL and less than 2x the CRQL. The associated field blank has contaminant analyte concentration less than the CRQL. Concentrations of the sample has been reported with an U.

**Chloroform** BFE51

**C) Trip blank contamination: BFE37, BFE44, BFE50**



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No additional qualification is required due to trip blank contamination.

**D) Storage Blank associated with TVOA samples only:**

The following trace volatile sample has common contaminant analyte concentrations reported less than 2x the CRQL. The associated storage blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQL.

**Methylene chloride BFE46**

**E) Tentatively Identified Compounds:**

Tentatively Identified Compounds (TICs) for TVOA organic fraction are not validated.

**5. MASS SPECTROMETER TUNING:**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**6. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum RRF criteria as listed in Table 2 of SOP HW 34A (Rev 1). If RRF is less than minimum RRF specified in Table 2 for all target analytes, use professional judgment and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**



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Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration.

Percent RSD must be less than maximum %RSD in Table 2 of SOP HW 34A (Rev 1) for all target analytes. For the opening or closing CCV %D must be within the inclusive opening or closing maximum %D limits as listed in Table 2 of SOP HW 34A (Rev 1) for all Target compounds. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and Non-detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, detects may be qualified as "J" and use professional judgment to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.

The following analytes in the sample shown were qualified for %RSD and %D:

The following samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detects are qualified as estimated J. Non-detects are not qualified.

**1,2,4-trichlorobenzene** BFE35, BFE37, BFE38, BFE40, BFE41

**1,2,3-Trichlorobenzene** BFE35, BFE37, BFE38, BFE40, BFE41

The following samples are associated with an opening or closing CCV percent difference (%D) outside criteria. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

**1,1-Dichloroethane** BFE44

7. INTERNAL STANDARDS PERFORMANCE GC/MS:

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range as specified in Table 9 of SOP HW 34A (Rev 1) of the associated continuing calibration internal standard area. The retention time of the internal standards must be within the range as specified in Table 9 of SOP HW 34A (Rev 1). If the area count is greater than, all positive results quantitated using that IS are qualified as estimated "J-", and non-detects are not qualified. If the area count is less than the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated "J+" and all non-detects are qualified "R".

If an internal standard retention time were not met as specified in Table 9 of SOP HW 34A (Rev 1), the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below. Qualifications were applied to the samples and analytes as shown below.

The following samples has internal standard area response greater than or equal to expanded minimum criteria and less than primary minimum criteria. Detects are qualified as estimated J+. Non-detects are qualified as estimated UJ.



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**1,4-Dichlorobenzene-d4 BFE46**

1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Bromoform

**8. FIELD DUPLICATES:**

No field duplicate sample was identified in this SDG.

**9. COMPOUND IDENTIFICATION:**

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within a window of 0.06 RRT units of the standard compound and have ion spectra which has a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**

Initial calibration percent relative standard deviation (%RSD) is outside criteria for the following analytes.

**1,2,4-trichlorobenzene and 1,2,3-Trichlorobenzene**

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

BFE40: 1,1-Dichloroethene results are qualified "J" as the reported values are over the calibration range and value reported in dilution analysis is less than CRQL and has not been used.

**13. DILUTIONS, RE-EXTRactions & REANALYSIS:**

**Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.**

The following dilution samples were only used for one or more analytes.

BFE38DL, BFE39DL, BFE40DL, BFE40DL2, BFE41DL, BFE41DL2, BFE46DL

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE35	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 08:15:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV
Sulfur dioxide	TIC	0.71	JN	ug/L	0.71	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE36	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 08:20:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.0	J	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE37	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 08:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE38	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EX-2	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 11:40:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
1,1-Dichloroethene	Target	3.7		ug/L	3.7		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.39	J	ug/L	0.39	J	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.1	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	2.6		ug/L	2.6		1.0	YES	S3VEM
1,1-Dichloroethane	Target	2.2		ug/L	2.2		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	17		ug/L	17		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.58		ug/L	0.58		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.79		ug/L	0.79		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.17	J	ug/L	0.17	J	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	220		ug/L	220	D	50.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.28	J	ug/L	0.28	J	1.0	YES	S3VEM
Tetrachloroethene	Target	260		ug/L	260	D	50.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE39	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-13	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 12:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.15	J	ug/L	0.15	J	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.8	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.42	J	ug/L	0.42	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	1.8		ug/L	1.8		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.95		ug/L	0.95		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.93		ug/L	0.93		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.31	J	ug/L	0.31	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	1.1		ug/L	1.1		1.0	YES	S3VEM
Trichloroethene	Target	2.4		ug/L	2.4		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	29		ug/L	29	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.19	J	ug/L	0.19	J	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE40	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-11S	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 15:50:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.32	J	ug/L	0.32	J	1.0	YES	S3VEM
1,1-Dichloroethene	Target	21	J+	ug/L	18	JD	40.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	9.5		ug/L	9.5		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.11	JB	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.23	J+	ug/L	0.23	J	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	3.0		ug/L	3.0		1.0	YES	S3VEM
1,1-Dichloroethane	Target	4.1		ug/L	4.1		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	35		ug/L	35	D	40.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.95		ug/L	0.95		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	3.6		ug/L	3.6		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
Benzene	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.36	J	ug/L	0.36	J	1.0	YES	S3VEM
Trichloroethene	Target	220		ug/L	220	D	40.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.78		ug/L	0.78		1.0	YES	S3VEM
Tetrachloroethene	Target	1200		ug/L	1200	D	200.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.060	J	ug/L	0.060	J	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.10	J	ug/L	0.10	J	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE41	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-11D	pH: 1.0	Sample Date: 12/04/2019	Sample Time: 15:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.16	J	ug/L	0.16	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	11		ug/L	11		1.0	YES	S3VEM
1,1-Dichloroethene	Target	34		ug/L	34	D	40.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	15		ug/L	15		1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	1.2	U	ug/L	1.2	B	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.64	J+	ug/L	0.64		1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.13	J	ug/L	0.13	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	15		ug/L	15		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	160		ug/L	160	D	40.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	7.2		ug/L	7.2		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	8.0		ug/L	8.0		1.0	YES	S3VEM
Cyclohexane	Target	0.14	J	ug/L	0.14	J	1.0	YES	S3VEM
Carbon tetrachloride	Target	1.3		ug/L	1.3		1.0	YES	S3VEM
Benzene	Target	4.1		ug/L	4.1		1.0	YES	S3VEM
1,2-Dichloroethane	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
Trichloroethene	Target	730		ug/L	730	D	40.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.060	J	ug/L	0.060	J	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.97		ug/L	0.97		1.0	YES	S3VEM
Tetrachloroethene	Target	1100		ug/L	1100	D	200.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.13	J	ug/L	0.13	J	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.55		ug/L	0.55		1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.26	J	ug/L	0.26	J	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE42	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 08:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.5	J	ug/L	2.5	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE35

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Methane, oxybis[chloro-	TIC	1.7	JN	ug/L	1.7	JN	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE43	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 08:15:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.0	J	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE44	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 08:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE45	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-5	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 11:15:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.4	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50		ug/L	0.50		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.96		ug/L	0.96		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.12	J	ug/L	0.12	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	1.3		ug/L	1.3		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.68		ug/L	0.68		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE46	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-6	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 11:40:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	27		ug/L	27	D	10.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.33	J	ug/L	0.33	J	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.4	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.090	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.28	J	ug/L	0.28	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	12		ug/L	12		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	6.5	J+	ug/L	6.5		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.65		ug/L	0.65		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	2.8		ug/L	2.8		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.30	J	ug/L	0.30	J	1.0	YES	S3VEM
Trichloroethene	Target	86		ug/L	86	D	10.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.16	J	ug/L	0.16	J	1.0	YES	S3VEM
Tetrachloroethene	Target	17		ug/L	17		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE47	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-10	pH: 1.0	Sample Date: 12/05/2019	Sample Time: 15:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.4	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.070	J	ug/L	0.070	J	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	6.2		ug/L	6.2		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.61		ug/L	0.61		1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	1.2		ug/L	1.2		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.54		ug/L	0.54		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE48	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/06/2019	Sample Time: 07:15:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.3	J	ug/L	2.3	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.48	J	ug/L	0.48	J	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE49	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/06/2019	Sample Time: 07:20:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.4	J	ug/L	2.4	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE50	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/06/2019	Sample Time: 07:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.65		ug/L	0.65		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE51	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-7	pH: 1.0	Sample Date: 12/06/2019	Sample Time: 11:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.6	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.11	J	ug/L	0.11	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.93		ug/L	0.93		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.84	U	ug/L	0.84		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.27	J	ug/L	0.27	J	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.78		ug/L	0.78		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE35

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
unknown-01	TIC	1.7	J	ug/L	1.7	J	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE52	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-8	pH: 1.0	Sample Date: 12/06/2019	Sample Time: 10:55:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.13	J	ug/L	0.13	J	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.8	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.26	J	ug/L	0.26	J	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.18	J	ug/L	0.18	J	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.26	J	ug/L	0.26	J	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.33	J	ug/L	0.33	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK22	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.49	J	ug/L	0.49	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK23	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.41	J	ug/L	0.41	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK24	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.6	J	ug/L	1.6	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.38	J	ug/L	0.38	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK25	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.9	J	ug/L	1.9	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.35	J	ug/L	0.35	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK26	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE35**

**Lab Name: Chemtech Consulting Group**

Sample Number: VHBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH: 1.0	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.9	J	ug/L	1.9	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.39	J	ug/L	0.39	JB	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE35

Lab Name: Chemtech Consulting Group



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**EXECUTIVE NARRATIVE**

**Case No.:** 48602

**Site:** New Cassel/ Hicksville GW Contamination

**Number of Samples:** 12 (Water)

**Analysis:** TVOA

**SDG No.:** BFE53

**Laboratory:** Shealy

**Sampling date:** 12/09-10/2019

**Validation SOP:** HW-34A (Rev. 1)

**QAPP:**

**Contractor:** HDR Inc.

**Reference:** DCN: 147-10163267, October 2019

**SUMMARY OF DEFINITIONS:**

**Critical:** Results have an unacceptable level of uncertainty and should not be used for making decisions. Data have been qualified "R" rejected.

**Major:** A level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified "J" estimated. "J+" and "J-" represent likely direction of the bias.

**Minor:** The level of uncertainty is acceptable. No significant bias in the data was observed.

**Critical Findings:**

None

**Major Findings:**

None

**Minor Findings:**

One or more analytes in one or more samples are qualified "J" due to results between MDL and CRQL.

**COMMENTS:** Samples have analytes above Project Action Limits. See Summary Report for details.

**Reviewer Name(s):** Narendra Kumar

**Date:** 02/14/2020

**Affiliation:** USEPA/R2/HWSB/HWSS



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Data Qualifier Definitions (National Functional Guidelines)			
Qualifier Symbol	Explanation		
	INORGANICS	ORGANICS	CHLORINATED DIOXIN/FURAN
U	The analyte was analyzed for, but was not detected above the level of the reported quantitation limit.	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method	The analyte was analyzed for but not detected. The value preceding the "U" may represent the adjusted Contract Required Quantitation Limit (see DLM02.X, Exhibit D, Section 1.2 and Table 2), or the sample specific estimated detection limit (EDL, see Method 8290A, Section 11.9.5).
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to an issue with the quality of the data generated because certain QC criteria were not met, or the concentration of the analyte was below the adjusted CRQL).
J+	The result is an estimated quantity, but the result may be biased high.	The result is an estimated quantity, but the result may be biased high.	
J-	The result is an estimated quantity, but the result may be biased low.	The result is an estimated quantity, but the result may be biased low.	
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.	The analyte was not detected (see definition of "U" flag, above). The reported value should be considered approximate.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
N		The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".	
NJ		The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	
C		This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).	
X		This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.	



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## DATA ASSESSMENT

### ANALYSIS: TVOA

The current SOP HW-34A (Rev. 1) September, 2016, USEPA Region II for the evaluation of Trace Volatile organic data generated through Statement of Work SOM02.2, and any future editorial revisions of SOM02.2, has been applied. Data have been reviewed according to TDF specifications, the National Functional Guidelines Report and the CCS Semi-Automated Screening Results Report. Tentatively Identified Compounds (TICs) for TVOA organic fraction is not validated.

#### 1. HOLDING TIME AND PRESERVATION:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as unusable, "R". Use professional judgment to qualify detects and non-detects for aqueous sample whose temperature is above 6° C or below 2° C Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

#### 2. DEUTERATED MONITORING COMPOUNDS (DMC's):

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery limits were outside Table 6 of the SOP HW 34A (Rev 1), qualifications were applied as per Table 7 of the SOP HW 34A (Rev. 1) to all the samples and analytes as shown below.

The following samples have DMC/surrogate percent recoveries less than the primary minimum criteria but greater than or equal to the expanded minimum criteria. Detects are qualified as estimated J-. Non-detects are qualified as estimated UJ.

1,1-Dichloroethene-d2, BFE60, BFE61, BFE62

trans-1,2-Dichloroethene

cis-1,2-Dichloroethene

#### 3. MATRIX SPIKE/ MATRIX SPIKE RECOVERY:

MS/MSD data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other QC criteria for additional qualification of data.

Not applicable.

#### 4. BLANK CONTAMINATION:



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Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as per Table 5 of SOP HW-34A (Rev 1).

**A) Method blank contamination:**

Method blank had the following contaminant results <CRQLs. The associated method blank results are less than CRQLs. Detects are qualified U. Sample results have been reported at CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

**Acetone, BFE57, BFE58, BFE59**

**Methylene chloride, BFE56**

**B) Storage Blank associated with VOA samples only:**

The following samples have analyte results reported less than CRQLs. The associated storage blank results are less than CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

**Acetone, BFE53, BFE54, BFE56, BFE57, BFE58, BFE59, BFE60, BFE61, BFE63, BFE64**

The following samples have analyte results reported greater than or equal to 2X Blank Results. The associated storage blank results are less than CRQLs. Detects are not qualified.

**Acetone, BFE56**

The following samples have analyte results reported less than CRQLs. The associated storage blank results are greater than or equal to CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

**Methylene chloride, BFE56**

**C) Equipment blank contamination:**

**10/09/2019 sampling, BFE53**

**Associated samples: BFE54 (Field Blank), BFE55 (Trip Blank), BFE56, BFE57, BFE58, BFE59**



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Equipment blank sample had the following contaminant < CRQL. Detects in the associated non-blank samples were qualified per SOP.

**Acetone (3.6 ug/L), BFE57, BFE58, BFE59**

Equipment blank sample had the following contaminant > CRQL. Detects in the non-QC field samples were qualified per SOP.

**Chloroform (0.93 ug/L), BFE57, BFE58, BFE59**

**Toluene (0.24 ug/L)**, Not detected in the non-QC associated samples.

**12/10 /2019 sampling, BFE60**

**Associated samples: BFE61 (Field Blank), BFE62(Trip Blank), BFE63, BFE64**

Equipment blank sample had the following contaminant < CRQL. Detects in the non-QC field samples were qualified per SOP

**Chloromethane (0.24 ug/L, < CRQL)**, Not detected in the non-QC associated samples.

**Acetone (2.5 ug/L, < CRQL), BFE63, BFE64**

Acetone was found to be present at higher levels in the Field and Trip Blanks. Detects in the non-QC field samples were qualified per SOP on the basis of blanks with higher level of Acetone.

**Toluene (0.17 ug/L)**, Not detected in the non-QC associated samples.

**D) Field blank contamination:**

**10/09/2019 sampling, BFE54**

**Associated samples: BFE53 (Equipment Blank), BFE55 (Trip Blank), BFE56, BFE57, BFE58, BFE59**

Field blank sample had the following contaminant < CRQL. Detects in the non-QC field samples were qualified per SOP.

**Acetone (3.6 ug/L), BFE56, BFE57, BFE58, BFE59**

**Toluene (0.24 ug/L, <CRQL)**, No Toluene was detected in the associated samples.

**12/10 /2019 sampling, BFE61,**

**Associated samples: BFE60 (Equipment Blank), BFE62(Trip Blank), BFE63, BFE64**

Field blank sample had the following contaminant < CRQL. Detects in the non-QC field samples were qualified per SOP.

**Chloromethane (0.23 ug/L)**, No contaminant was found in the associated non-QC samples



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Acetone (2.7 ug/L, < CRQL), BFE63, BFE64  
Toluene (0.2 ug/L, < CRQL), BFE63, BFE64

E) Trip blank contamination:

12/09 /2019 sampling, Trip blank BFE55,

**Associated samples:** BFE53 (Equipment Blank), BFE54 (Field Blank), BFE56, BFE57, BFE58, BFE59

No Contaminant was found in this Trip Blank.

12/10 /2019 sampling, Trip blank BFE62,

**Associated samples:** BFE60 (Equipment Blank), BFE61 (Field Blank), BFE63, BFE64

Trip blank has the following analytes less than the CRQL.

Chloromethane (0.27 ug/L), Associated non-QC samples did not have this contaminant.

D) Tentatively Identified Compounds:

Tentatively Identified Compounds (TICs) for TVOA organic fraction are not validated.

5. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is (BFB) Bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:



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The response factor measures the instrument's response to specific chemical compounds. All analytes for initial, ICV and continuing calibration should meet the minimum RRF criteria as listed in Table 2 of SOP HW 34A (Rev. 1). If RRF is less than minimum RRF specified in Table 2 for all target analytes, use professional judgment and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R".

No problems were found for this criterion.

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration.

Percent RSD must be less than maximum %RSD in Table 2 of SOP HW 34A (Rev. 1) for all target analytes. For the opening or closing CCV %D must be within the inclusive opening or closing maximum %D limits as listed in Table 2 of SOP HW 34A (Rev. 1) for all Target compounds. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and Non-detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, detects may be qualified as "J" and use professional judgment to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**7. INTERNAL STANDARDS PERFORMANCE GC/MS:**

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range as specified in Table 9 of SOP HW 34A (Rev. 1) of the associated continuing calibration internal standard area. The retention time of the internal standards must be within the range as specified in Table 9 of SOP HW 34A (Rev. 1). If the area count is greater than, all positive results quantitated using that IS are qualified as estimated "J-", and non-detects are not qualified. If the area count is less than the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated "J+" and all non-detects are qualified "R".

If an internal standard retention time were not met as specified in Table 9 of SOP HW 34A (Rev. 1), the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**8. FIELD DUPLICATES:**



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Field duplicates not found in this SDG.

**9. COMPOUND IDENTIFICATION:**

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within a window of 0.06 RRT units of the standard compound and have ion spectra which has a ratio of the primary and secondary m/z intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Qualifications were applied to the samples and analytes as shown below.

No problems were found for this criterion.

**10. CONTRACT PROBLEMS NON-COMPLIANCE:**

None

**11. FIELD DOCUMENTATION:**

No problems were identified.

**12. OTHER PROBLEMS:**

None.

**13. DILUTIONS, RE-EXTRactions & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.

The following samples were analyzed at dilutions. One or more analytes are reported from dilution runs.

BFE63 and BFE64

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE53	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 08:40:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	3.6	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE54	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 08:35:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	3.6	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE55	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 08:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE56	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-17D	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 11:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Chloromethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Vinyl chloride	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Bromomethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Chloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Trichlorofluoromethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1-Dichloroethene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Acetone	Target	2000	U	ug/L	770	J	400.0	YES	S3VEM
Carbon disulfide	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Methyl Acetate	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Methylene chloride	Target	200	U	ug/L	160	JB	400.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Methyl tert-butyl Ether	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1-Dichloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	950		ug/L	950		400.0	YES	S3VEM
2-Butanone	Target	2000	U	ug/L	2000	U	400.0	YES	S3VEM
Bromochloromethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Chloroform	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1,1-Trichloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Cyclohexane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Carbon tetrachloride	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Benzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2-Dichloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Trichloroethene	Target	900		ug/L	900		400.0	YES	S3VEM
Methylcyclohexane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2-Dichloropropane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Bromodichloromethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
4-Methyl-2-pentanone	Target	2000	U	ug/L	2000	U	400.0	YES	S3VEM
Toluene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1,2-Trichloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Tetrachloroethene	Target	7000		ug/L	7000		400.0	YES	S3VEM
2-Hexanone	Target	2000	U	ug/L	2000	U	400.0	YES	S3VEM
Dibromochemicalmethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2-Dibromoethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Chlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Ethylbenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
o-Xylene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
m,p-Xylene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Styrene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Bromoform	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Isopropylbenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,3-Dichlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,4-Dichlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2-Dichlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	200	U	ug/L	200	U	400.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	400.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE57	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-17S	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 12:00:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.7	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	1.3	U	ug/L	1.3		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.90		ug/L	0.90		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE58	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-15	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 14:35:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	1.1	U	ug/L	1.1		1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.62		ug/L	0.62		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE59	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-15	pH: 1.0	Sample Date: 12/09/2019	Sample Time: 14:35:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.9	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.49	J	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.54		ug/L	0.54		1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE60	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EB	pH: 1.0	Sample Date: 12/10/2019	Sample Time: 07:40:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.24	J	ug/L	0.24	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.5	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.17	J	ug/L	0.17	J	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethyl Acetate	TIC	0.53	JN	ug/L	0.53	JN	1.0	YES	S3VEM

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE53

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE61	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: FB	pH: 1.0	Sample Date: 12/10/2019	Sample Time: 07:35:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.23	J	ug/L	0.23	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.7	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.20	J	ug/L	0.20	J	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE53

Lab Name: Chemtech Consulting Group

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Ethyl Acetate	TIC	0.55	JN	ug/L	0.55	JN	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE62	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: TB	pH: 1.0	Sample Date: 12/10/2019	Sample Time: 07:30:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.27	J	ug/L	0.27	J	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE63	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: MW-12	pH: 1.0	Sample Date: 12/10/2019	Sample Time: 10:50:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	1.4		ug/L	1.4		1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	1.8	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.48	J	ug/L	0.48	J	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.56		ug/L	0.56		1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	4.1		ug/L	4.1		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.44	J	ug/L	0.44	J	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	19		ug/L	19		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	28		ug/L	28	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: BFE64	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: EX-1	pH: 1.0	Sample Date: 12/10/2019	Sample Time: 14:05:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	2.0	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	1.0		ug/L	1.0		1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	2.5		ug/L	2.5		1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	47		ug/L	47	D	5.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.33	J	ug/L	0.33	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK03	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.53		ug/L	0.53		1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK25	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	1.9	J	ug/L	1.9	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.35	J	ug/L	0.35	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK26	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VBLK30	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.2	J	ug/L	2.2	J	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.22	J	ug/L	0.22	J	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

**Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project**

**GroupID: 48602/EPW14030/BFE53**

**Lab Name: Chemtech Consulting Group**

Sample Number: VHBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Acetone	Target	2.0	J	ug/L	2.0	JB	1.0	YES	S3VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylene chloride	Target	0.66		ug/L	0.66	B	1.0	YES	S3VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S3VEM
Dibromochemicalmethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
o-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
m,p-Xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S3VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	S3VEM

# Sample Summary Report

Project Name: NEW CASSEL/HICKSVILLE  
GROUND WATER CONTAMINATION Project

GroupID: 48602/EPW14030/BFE53

Lab Name: Chemtech Consulting Group

## Appendix D

### IDW Management



American Analytical Laboratories, LLC.  
56 Toledo Street  
Farmingdale, New York 11735  
TEL: (631) 454-6100 FAX: (631) 454-8027  
Website: [www.American-Analytical.com](http://www.American-Analytical.com)

February 11, 2020

Gary Hughes  
Innovative Recycling Technologies, Inc.  
690 North Queens Ave.  
Lindenhurst, NY 11757  
TEL: (631) 225-3044  
FAX: (631) 225-3056

RE: New Cassel/Hicksville, NY

Order No.: 2002017

Dear Gary Hughes:

American Analytical Laboratories, LLC. received 1 sample(s) on 2/4/2020 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at [lbeyer@american-analytical.com](mailto:lbeyer@american-analytical.com).

Sincerely,

Lori Beyer  
Lab Director  
American Analytical Laboratories, LLC.



American Analytical Laboratories, LLC.  
56 Toledo Street  
Farmingdale, New York 11735  
TEL: (631) 454-6100 FAX: (631) 454-8027  
Website: [www.American-Analytical.com](http://www.American-Analytical.com)

**Workorder**  
**Sample Summary**  
WO#: 2002017  
11-Feb-20

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**CLIENT:** Innovative Recycling Technologies, Inc.  
**Project:** New Cassel/Hicksville, NY

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Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
2002017-001A	New Cassel WC-01		2/4/2020 9:00:00 AM	2/4/2020 12:25:00 PM	Liquid
2002017-001B	New Cassel WC-01		2/4/2020 9:00:00 AM	2/4/2020 12:25:00 PM	Liquid
2002017-001C	New Cassel WC-01		2/4/2020 9:00:00 AM	2/4/2020 12:25:00 PM	Liquid

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Original



## CHAIN OF CUSTODY

556 Toledo Street, Farmingdale NY 11735  
(T) 631-454-6100 (F) 631-454-8027  
[www.american-analytical.com](http://www.american-analytical.com)



CERTIFICATIONS

NY ELAP - 11418 PA DEP - 68-00573  
NJ DEP - NY050 CT DOH - PH-0205

### **Client Information**

Client Information						Project Information						Analytical Test / Information					
Company Name <b>Innovative Recycling Tech, Inc.</b>			Project Name <b>New Cassel/Hicksville</b>														
Address <b>690 N. Queens Ave</b>		City <b>Lindenhurst NY</b>		State <b>11757</b>		Street		State		Zip							
Project Contact <b>Gary Hughes</b>																	
Phone # <b>516-216-0025</b>						Project # / Purchase Order # <b>20-014</b>											
E-mail <b>ghughes@intriastre.com</b>						Sampler's Name / Company <b>/ IRT</b>											
LAB		Signature <b>Gary Hughes</b>				Sampler's Signature <b>W. Hughes</b>											
SAMPLE INFORMATION						SAMPLE COLLECTION						SAMPLE CONTAINERS					
(LAB USE ONLY) Client Sample ID <b>200017-001</b> <b>200017-001 New Cassel/WC-01</b>						Sample Type Matrix Code Date Time Glass / Plastic Total # of bottles Number of Each Preserved Bottle						OTHER MeOH ID Water (5035A) H2O ZnO HCl NaOH NONE					
<b>LAB</b> <b>PCB</b> <b>TCLP Metals (8 REA)</b> <b>8270</b> <b>8260</b>						<b>PCB</b> <b>TCLP Metals (8 REA)</b> <b>8270</b> <b>8260</b>						<b>PCB</b> <b>TCLP Metals (8 REA)</b> <b>8270</b> <b>8260</b>					
Turnaround Time (Business Days)						Matrix Code						Electronic Deliverables					
Standard		G = Grab		L = Liquid		PC = Paint Chip		NYCRR Part 375 - please circle									
<input type="checkbox"/>		<input type="checkbox"/> 3 Day RUSH		<input type="checkbox"/> S = Soil		<input type="checkbox"/> SL = Sludge		Unres/ Comm/ Industrial/ Residential/ Res Residential/ PGW									
<input checked="" type="checkbox"/> 5 Day RUSH		<input type="checkbox"/> 2 Day RUSH		<input type="checkbox"/> O = Oil		<input type="checkbox"/> SD = Solid		NJ Soil Clean Up Criteria									
<input type="checkbox"/> 4 Day RUSH		<input type="checkbox"/> 1 Day RUSH		<input type="checkbox"/> W = Wipe		<input type="checkbox"/> M = Misc		SCDOH Action Levels									
Please contact laboratory for rush service availability								TCLP Hazardous Waste									
3								NYSDEC EQUIIS									
Sample custody must be documented below, each time samples change possession, with a signature, date, and time.						RECEIVED BY LAB (SIGNATURE) <b>J. Mass</b>						COOLER TEMP: <b>3.9°C</b>					
RELINQUISHED BY (SIGNATURE) <b>John Jones</b>		DATE <b>2/14/20</b>		PRINTED NAME		DATE <b>2/14/20</b>						PRINTED NAME <b>John Jones</b>					
		TIME <b>12:25</b>				TIME <b>12:25</b>											
RELINQUISHED BY (SIGNATURE) <b>John Jones</b>		DATE		PRINTED NAME		DATE						PRINTED NAME					
		TIME				TIME											



American Analytical Laboratories, LLC.  
56 Toledo Street  
Farmingdale, New York 11735  
TEL: (631) 454-6100 FAX: (631) 454-8027  
Website: www.American-Analytical.com

## Sample Log-In Check List

Client Name: IRT Work Order Number: 2002017 RcptNo: 1

Logged by: Lori Beyer 2/4/2020 12:25:00 PM

Completed By: Lori Beyer 2/4/2020 1:17:37 PM

Reviewed By: Phyllis Masi 2/4/2020

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
4. Shipping container/cooler in good condition? Yes  No   
Custody seals intact on shipping container/cooler? Yes  No  Not Present   
No. Seal Date: Signed By:  
5. Was an attempt made to cool the samples? Yes  No  NA   
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
7. Sample(s) in proper container(s)? Yes  No   
8. Sufficient sample volume for indicated test(s)? Yes  No   
9. Are samples (except VOA and ONG) properly preserved? Yes  No   
10. Was preservative added to bottles? Yes  No  NA   
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
12. Were any sample containers received broken? Yes  No   
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No   
14. Are matrices correctly identified on Chain of Custody? Yes  No   
15. Is it clear what analyses were requested? Yes  No   
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
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Website: [www.American-Analytical.com](http://www.American-Analytical.com)

## Case Narrative

WO#: 2002017  
Date: 2/11/2020

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**CLIENT:** Innovative Recycling Technologies, Inc.  
**Project:** New Cassel/Hicksville, NY

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Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions noted in this Narrative discussion.

Volatile LCS are analyzed with preservatives - HCL/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

SVOA: Calibration for Benzoic Acid does not meet method requirements. Reporting limit must be considered estimated.

PCBs are analyzed on two distinct columns. Once a target compound is qualitatively confirmed by detection on both columns and quantitation is determined to be >40% between the two columns, AAL's policy is to report the lower of the values as suggested by SW846 Method 8000C in cases where no interference exists. If in the professional judgment of the laboratory, the higher value must be utilized this is explained in the lab report.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Limonene. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramphen, DCPA, Picloram, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Total Phosphorus in soil, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are

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Original



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TEL: (631) 454-6100 FAX: (631) 454-8027  
Website: [www.American-Analytical.com](http://www.American-Analytical.com)

## Case Narrative

WO#: 2002017  
Date: 2/11/2020

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**CLIENT:** Innovative Recycling Technologies, Inc.  
**Project:** New Cassel/Hicksville, NY

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only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

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## Definition Only

WO#: 2002017  
Date: 2/11/2020

### Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports

ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

\* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.

PQL - Practical Quantitation Limit; the lowest level that can be reliably achieved within the specific limits of Precision and accuracy. Listed on the QC Summary Forms.

m - Analyte was manually integrated for GC/MS.

+ - Concentration exceeds regulatory level for TCLP

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Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001A

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260D</b>							
1,1,1,2-Tetrachloroethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,1,1-Trichloroethane	ND	0.25	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,1,2,2-Tetrachloroethane	ND	0.25	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.25	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,1,2-Trichloroethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,1-Dichloroethane	1.6	0.50	2.0	J	µg/L	1	2/5/2020 6:24:00 PM
1,1-Dichloroethene	2.7	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM
1,1-Dichloropropene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2,3-Trichlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2,3-Trichloropropane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2,4,5-Tetramethylbenzene	5.1	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM
1,2,4-Trichlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2,4-Trimethylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2-Dibromoethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2-Dichlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2-Dichloroethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,2-Dichloropropene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,3,5-Trimethylbenzene	0.72	0.50	2.0	J	µg/L	1	2/5/2020 6:24:00 PM
1,3-Dichlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,3-dichloropropane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,4-Dichlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
1,4-Dioxane	ND	0.50	1.0	U	µg/L	1	2/5/2020 6:24:00 PM
2,2-Dichloropropane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
2-Butanone	ND	1.0	4.0	U	µg/L	1	2/5/2020 6:24:00 PM
2-Chloroethyl vinyl ether	ND	10	20	U	µg/L	1	2/5/2020 6:24:00 PM
2-Chlorotoluene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
2-Hexanone	ND	1.0	4.0	U	µg/L	1	2/5/2020 6:24:00 PM
2-Propanol	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
4-Chlorotoluene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
4-Isopropyltoluene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
4-Methyl-2-pentanone	ND	1.0	4.0	U	µg/L	1	2/5/2020 6:24:00 PM
Acetone	13	5.0	10		µg/L	1	2/5/2020 6:24:00 PM

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Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001A

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260D</b>							
Benzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Bromobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Bromochloromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Bromodichloromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Bromoform	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Bromomethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Carbon disulfide	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Carbon tetrachloride	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Chlorobenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Chlorodifluoromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Chloroethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Chloroform	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Chloromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
cis-1,2-Dichloroethene	23	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM
cis-1,3-Dichloropropene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Cyclohexane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Dibromochloromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Dibromomethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Dichlorodifluoromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Diisopropyl ether	ND	1.0	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Ethanol	ND	20	20	U	µg/L	1	2/5/2020 6:24:00 PM
Ethylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Freon-114	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Hexachlorobutadiene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Isopropylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
m,p-Xylene	ND	1.0	4.0	U	µg/L	1	2/5/2020 6:24:00 PM
Methyl Acetate	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Methyl tert-butyl ether	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Methylene chloride	7.9	0.50	2.0	B	µg/L	1	2/5/2020 6:24:00 PM
n-Butylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
n-Propylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Naphthalene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
o-Xylene	2.8	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM

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Original

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Date: 11-Feb-20

**ELAP ID : 11418**

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**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001A

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>VOLATILE SW-846 METHOD 8260D</b>							
p-Diethylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
p-Ethyltoluene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
sec-Butylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Styrene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
t-Butyl alcohol	ND	5.0	10	U	µg/L	1	2/5/2020 6:24:00 PM
tert-Butylbenzene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Tetrachloroethene	70	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM
Toluene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
trans-1,2-Dichloroethene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
trans-1,3-Dichloropropene	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Trichloroethene	34	0.50	2.0		µg/L	1	2/5/2020 6:24:00 PM
Trichlorofluoromethane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Vinyl acetate	ND	1.0	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Vinyl chloride	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Xylenes, Total	2.8	1.5	6.0	J	µg/L	1	2/5/2020 6:24:00 PM
Methylcyclohexane	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM
Acrolein	ND	5.0	10	U	µg/L	1	2/5/2020 6:24:00 PM
Acrylonitrile	ND	0.50	2.0	U	µg/L	1	2/5/2020 6:24:00 PM

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Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001B

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>PCB'S AS AROCLORS SW-846 METHOD 8082A</b>							
Aroclor 1016	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1221	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1232	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1242	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1248	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1254	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1260	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1262	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
Aroclor 1268	ND	0.050	0.10	U	µg/L	1	2/7/2020 11:49:00 AM
<b>SEMOVOLATILE SW-846 METHOD 8270E</b>							
Biphenyl	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
1,2,4-Trichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
1,2-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
1,3-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
1,4-Dichlorobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2,4,5-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2,4,6-Trichlorophenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2,4-Dichlorophenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2,4-Dimethylphenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
2,4-Dinitrophenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
2,4-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2,6-Dinitrotoluene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Chloronaphthalene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Chlorophenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Methylnaphthalene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
2-Nitrophenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
3+4-Methylphenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
3,3'-Dichlorobenzidine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
3-Nitroaniline	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
4,6-Dinitro-2-methylphenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM

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Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001B

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270E</b>							
4-Bromophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
4-Chloro-3-methylphenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
4-Chloroaniline	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
4-Chlorophenyl phenyl ether	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
4-Nitroaniline	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
4-Nitrophenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Acenaphthene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Acenaphthylene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Acetophenone	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Aniline	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Anthracene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Atrazine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Azobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzaldehyde	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Benzidine	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Benzo(a)anthracene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzo(a)pyrene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzo(b)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzo(g,h,i)perylene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzo(k)fluoranthene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Benzoic acid	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Benzyl alcohol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Bis(2-chloroethoxy)methane	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Bis(2-chloroethyl)ether	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Bis(2-chloroisopropyl)ether	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Bis(2-ethylhexyl)phthalate	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Butyl benzyl phthalate	1.8	1.0	10	J	µg/L	1	2/7/2020 12:20:00 PM
Caprolactam	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Carbazole	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Chrysene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Di-n-butyl phthalate	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Di-n-octyl phthalate	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Dibenz(a,h)anthracene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM

American Analytical Laboratories, LLC., 56 Toledo Street, Farmingdale, New York, Zip - 11735

Tel - (631) 454-6100 Fax - (631) 454-8027 www.american-analytical.com



Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001B

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>SEMIVOLATILE SW-846 METHOD 8270E</b>							
Dibenzofuran	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Diethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Dimethyl phthalate	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Fluoranthene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Fluorene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Hexachlorobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Hexachlorobutadiene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Hexachlorocyclopentadiene	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Hexachloroethane	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Indeno(1,2,3-c,d)pyrene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Isophorone	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
N-Nitrosodi-n-propylamine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
N-Nitrosodimethylamine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
N-Nitrosodiphenylamine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Naphthalene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Nitrobenzene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Parathion	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Pentachlorophenol	ND	1.0	10	U	µg/L	1	2/7/2020 12:20:00 PM
Phenanthrene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Phenol	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Pyrene	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM
Pyridine	ND	0.50	5.0	U	µg/L	1	2/7/2020 12:20:00 PM

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Original

**American Analytical Laboratories, LLC.**

Date: 11-Feb-20

**ELAP ID : 11418**

**CLIENT:** Innovative Recycling Technologies, Inc.  
**Lab Order:** 2002017  
**Project:** New Cassel/Hicksville, NY  
**Lab ID:** 2002017-001C

**Client Sample ID:** New Cassel WC-01  
**Collection Date:** 2/4/2020 9:00:00 AM  
**Matrix:** LIQUID

**Certificate of Results**

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
<b>TCLP MERCURY</b>							
Mercury	ND	0.000500	0.0200	U	mg/L	1	2/7/2020 12:58:05 PM
<b>TCLP METALS</b>							
Arsenic	ND	0.0100	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
Barium	ND	0.200	0.500	U	mg/L	1	2/7/2020 1:44:45 PM
Cadmium	ND	0.00500	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
Chromium	ND	0.00500	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
Lead	ND	0.00500	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
Selenium	ND	0.0100	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
Silver	ND	0.00500	0.0500	U	mg/L	1	2/7/2020 1:44:45 PM
<b>IGNITABILITY/FLASHPOINT SW-846 1010A</b>							
Ignitability	ND	65.0	140	U	°F	1	2/11/2020 10:22:56 AM
<b>TEMPERATURE</b>							
Temp at which pH was measured	8.10	0	0		°C	1	2/4/2020 2:00:00 PM
<b>HYDROGEN ION (PH)</b>							
pH	7.17	0.500	1.00	H	pH Units	1	2/4/2020 2:00:00 PM
<b>REACTIVE CYANIDE</b>							
Reactive Cyanide	ND	0.0100	0.0200	U	mg/L	1	2/10/2020 4:02:32 PM
<b>REACTIVE SULFIDE</b>							
Reactive Sulfide	ND	1.00	1.00	U	mg/L	1	2/6/2020 10:38:23 AM

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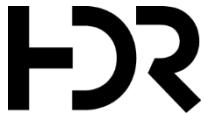
Original

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>N Y 0 0 0 1 0 9 5 3 6 3</b>	2. Page 1 of 1	3. Emergency Response Phone <b>(267) 406-0083</b>	4. Waste Tracking Number <b>4 2 3 3 5</b>	
5. Generator's Name and Mailing Address <b>US Environmental Protection Agency 290 Broadway New York NY 10007</b> Generator's Phone: <b>212 637-4328</b>		Generator's Site Address (if different than mailing address) <b>US Environmental Protection Agency New Cassel-Hicksville Site: 650 Commercial Avenue Garden City NY 11530</b>				
6. Transporter 1 Company Name <b>Innovative Recycling Technologies, Inc.</b>		U.S. EPA ID Number <b>N Y R 0 0 0 1 3 4 9 4 0</b>				
7. Transporter 2 Company Name <b>Republic Environmental Systems (Trans Group) LLC</b>		U.S. EPA ID Number <b>P A D 9 8 2 6 6 1 3 8 1</b>				
8. Designated Facility Name and Site Address <b>Republic Environmental Systems (PA), LLC 2869 Sandstone Drive Hatfield PA 19440</b> Facility's Phone: <b>215 822-8995</b>		U.S. EPA ID Number <b>P A D 0 8 5 6 9 0 5 9 2</b>				
9. Waste Shipping Name and Description 1. Non Hazardous Groundwater Non-DOT Regulated Material		10. Containers No.      Type	11. Total Quantity	12. Unit Wt./Vol.		
		03	0m	1200	P	
13. Special Handling Instructions and Additional Information 9.1) 105966 Doc#						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <b>David Avudzega (HDR on behalf of USEPA)</b>		Signature <b>David Avudzega (HDR on behalf of USEPA)</b> Month Day Year <b>03 05 20</b>				
15. International Shipments Transporter Signature (for exports only): <b>Jones Ulrich</b>		Import to U.S.      Export from U.S. Port of entry/exit: Date leaving U.S.: Month Day Year <b>03 05 20</b>				
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <b>Jones Ulrich</b>		Signature <b>J. Ulrich</b> Month Day Year Signature <b>J. Ulrich</b> Month Day Year <b>03 05 20</b>				
17. Discrepancy 17a. Discrepancy Indication Space		<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
17b. Alternate Facility (or Generator)		Manifest Reference Number:				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month Day Year				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name <b>169-BLC-O 6 10498 (Rev. 9/09)</b>		Signature				Month Day Year

DESIGNATED FACILITY TO GENERATOR

# Appendix E

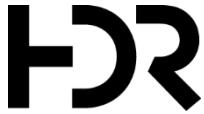
## Daily Quality Control Reports



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Partly cloudy 39-55 F	PREPARED BY: Thomas Giordano		DATE: 11/25/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
	David Avudzega	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		Delivered to Nanuet office—portion transported to site field office
	Bonded teflon-lined tubing	3200	ft		Delivered to Nanuet office—portion transported to site field office



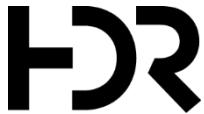
Work Activities and Details	<b>WORK ACTIVITES COMPLETED:</b>		
	<ul style="list-style-type: none"><li>• HDR mobilized to the site to commence groundwater sampling at 29 well locations.</li><li>• Four wells were sampled for trace VOCs analysis using low-flow methodology: MW-1, -2, -3, and -4.</li><li>• A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>• Supplies were stored at the field office (650 Commercial Avenue, Garden City, NY 11530).</li><li>• IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office.</li></ul>		
QC	<b>QC ACTIVITIES COMPLETED (including calibration):</b>		
	PID and YSIs calibrated.		
H&S	<b>HEALTH &amp; SAFETY INFORMATION:</b>		
	Tailgate topic was traffic awareness.		
Submittals	<b>DESCRIPTION/TITLE</b>	<b>SUBMITTED BY</b>	<b>NOTES</b>
	None.		
Prob./Corr. Actions:	<b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b>		
	None.		
Other	<b>SPECIAL NOTES/INSTRUCTIONS</b>		
	None.		
Next Day	<b>EXPECTED ACTIVITIES FOR TOMORROW:</b>		
	Sampling will continue tomorrow, 11/26.		

Client Name/Contract	Site Location:	Project No.
USEPA Region 2 / EP-W-09-009	USEPA NCHGW OU1/Nassau County	10163267

Photo No. 1	Date: 11/25/19	
<b>Description:</b> Lowering pump into MW-1.		

Photo No. 2	Date: 11/25/19	
<b>Description:</b> Tubing setup.		

**Client Name/Contract**  
USEPA Region 2 / EP-W-09-009**Site Location:**  
USEPA NCHGW OU1/Nassau County**Project No.**  
10163267**Photo No.** 3      **Date:** 11/25/19**Description:**  
Sampling setup.**Photo No.** 4      **Date:** 11/25/19**Description:**  
Purging at MW-1, -2, -3, and -4 cluster.



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Partly cloudy 39-55 F	PREPARED BY: Thomas Giordano		DATE: 11/26/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		Delivered to Nanuet office—portion transported to site field office
	Bonded teflon-lined tubing	3200	ft		Delivered to Nanuet office—portion transported to site field office

Work Activities and Details	<b>WORK ACTIVITES COMPLETED:</b>		
	<ul style="list-style-type: none"><li>• HDR continued groundwater sampling.<ul style="list-style-type: none"><li>◦ Three wells were sampled for trace VOCs analysis using low-flow methodology: EW-1B, EW-1C, and MW-14. Samples from EW-1C and MW-14 exhibited stable, elevated turbidity (662 and 108.5 NTU, respectively) after over an hour of purging each.</li><li>◦ A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>◦ All samples from today were shipped to Chemtech via FedEx: Air Bill 7770 9068 0296.</li><li>◦ A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>• Supplies and equipment were stored at the field office (650 Commercial Avenue, Garden City, NY 11530).</li><li>• IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office.</li></ul>		
QC	<b>QC ACTIVITIES COMPLETED (including calibration):</b>		
QC	PID and YSIs calibrated.		
H&S	<b>HEALTH &amp; SAFETY INFORMATION:</b>  Tailgate topic was coming off work area.		
Submittals	<b>DESCRIPTION/TITLE</b>	<b>SUBMITTED BY</b>	<b>NOTES</b>
	None.		
Prob./Corr. Actions:	<b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b>  None.		
Other	<b>SPECIAL NOTES/INSTRUCTIONS</b>  None.		
Next Day	<b>EXPECTED ACTIVITIES FOR TOMORROW:</b>  Sampling will continue Monday, 12/2.		

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 11/26/19		
<b>Description:</b> Calibrating YSI water quality meter.			
<b>Photo No.</b> 2	<b>Date:</b> 11/26/19		
<b>Description:</b> Setting up at EW-1C (left) and EW-1B (right).			



# **PHOTOGRAPHIC LOG**

Page 4 of 4

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009	<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
---	--	--------------------------------

Well Sampling Log													
Site: New Cassel		Company: HDR		Sheet _____ of _____									
Date: 11	Field Personnel: Paul												
Weather: 50° SWAY													
Monitor Well #: EW-1C	Well Depth: 516	Screened/Interval: 132-142											
Well Permit #: 4	Well Diameter: 4"												
PID Readings (ppm):	Background: 0.0	Pump Inlet Depth: 510		Ft Below TOC									
Beneath Outer Cap:		Depth to Water Before Pump Installation: 42.14		Ft below TOC									
Beneath Inner Cap:		Make/Model of Pump:											
TIME	DATE	Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mv)	Specific Conductivity (ms/cm <sup>3</sup> )	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (mL/min)	Depth To Water (ft below TOC)			
			Reading	Change*	Reading	Change*	Reading	Change*	Reading	Change*			
1130			15.74	9.11	-18.6	0.252	5.36	245	250	42.14			
1135			15.77	9.05	-10.00	0.252	3.12	203					
1140			15.64	8.51	-106.0	0.246	2.32	125					
1150			12.68	8.75	-112.3	0.241	1.64	1040					
1155			15.23	7.41	-112.8	0.242	1.13	140					
1200			15.23	8.36	-113.6	0.259	1.47	1338					
1205			15.60	8.21	-103.3	0.232	1.56	1442					
1210			15.71	8.01	-101.1	0.230	1.21	1023					
1215			15.67	7.93	-98.6	0.229	1.83	903					
1220			15.63	7.84	-96.0	0.229	1.92	856					
1225			15.68	7.83	-96.2	0.228	1.91	813					
1230			15.69	7.79	-95.5	0.228	1.67	783					
1235			15.66	7.68	-99.3	0.226	1.31	823					
1240			15.87	7.63	-84.2	0.226	1.23	802					
1245			15.56	7.55	-82.5	0.225	1.30	753					
1250			15.53	7.52	-80.1	0.225	1.30	716					
1255			15.52	7.48	-77.1	0.224	1.32	681					
1300			15.44	7.45	-74.6	0.223	1.31	662					
1305	X									42.25			

Comments:

<b>Photo No.</b> 4	<b>Date:</b> 11/26/19	
<b>Description:</b> None.		



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Wintry mix, 30/37 F	PREPARED BY: Thomas Giordano		DATE: 12/02/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
	Jiss Philip	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.



## DAILY QUALITY CONTROL REPORT

Page 2 of 4

Work Activities and Details	<p><b>WORK ACTIVITES COMPLETED:</b></p> <ul style="list-style-type: none"> <li>• HDR continued groundwater sampling. <ul style="list-style-type: none"> <li>◦ Three wells were sampled for trace VOCs analysis using low-flow methodology: FSMW-13B, FSMW-13C, and FSMW-14C.</li> <li>◦ A duplicate sample was collected at FSMW-13C for trace VOCs analysis.</li> <li>◦ A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li> <li>◦ All samples from today were shipped to Chemtech via FedEx: Air Bill 7771 2556 6910.</li> <li>◦ A region copy of the COC (.xml format) was uploaded to the SMO portal.</li> </ul> </li> <li>• IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office (650 Commercial Avenue, Garden City, NY 11530).</li> </ul>						
QC	<p><b>QC ACTIVITIES COMPLETED (including calibration):</b></p> <p>PID and YSIs calibrated.</p>						
H&S	<p><b>HEALTH &amp; SAFETY INFORMATION:</b></p> <p>Tailgate topic was winter weather safety.</p>						
Submittals	<table border="1" data-bbox="99 958 1584 1079"> <thead> <tr> <th data-bbox="99 958 540 1015">DESCRIPTION/TITLE</th><th data-bbox="540 958 1225 1015">SUBMITTED BY</th><th data-bbox="1225 958 1584 1015">NOTES</th></tr> </thead> <tbody> <tr> <td data-bbox="99 1015 540 1079">None.</td><td data-bbox="540 1015 1225 1079"></td><td data-bbox="1225 1015 1584 1079"></td></tr> </tbody> </table>	DESCRIPTION/TITLE	SUBMITTED BY	NOTES	None.		
DESCRIPTION/TITLE	SUBMITTED BY	NOTES					
None.							
Prob./Corr. Actions:	<p><b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b></p> <p>None.</p>						
Other	<p><b>SPECIAL NOTES/INSTRUCTIONS</b></p> <p>None.</p>						
Next Day	<p><b>EXPECTED ACTIVITIES FOR TOMORROW:</b></p> <p>Sampling will continue tomorrow 12/3.</p>						

**Client Name/Contract**

USEPA Region 2 / EP-W-09-009

**Site Location:**

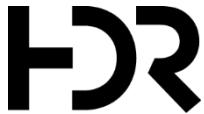
USEPA NCHGW OU1/Nassau County

**Project No.**

10163267

**Photo No.**  
1      **Date:**  
12/02/19**Description:**  
Purging at FSMW-13B.**Photo No.**  
2      **Date:**  
12/02/19**Description:**  
Purging at FSMW-13B.

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/02/19	<b>Description:</b> Taking turbidity readings during well purging.	
<b>Photo No.</b> 4	<b>Date:</b> 12/02/19	<b>Description:</b> FedEx shipping receipt.	



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Sunny, 29/39 F	PREPARED BY: Thomas Giordano		DATE: 12/03/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
	Jiss Philip	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.

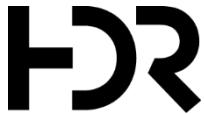


Work Activities and Details	<p><b>WORK ACTIVITES COMPLETED:</b></p> <ul style="list-style-type: none"><li>HDR continued groundwater sampling.<ul style="list-style-type: none"><li>Four wells were sampled for trace VOCs analysis using low-flow methodology: MW-16S, MW-16D, MW-9, and EW-2B.</li><li>A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>All samples from today were shipped to Chemtech via FedEx: Air Bill 7771 3205 2083.</li><li>A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>The EW-2C well cover could not be opened with the tools at hand, as the bolts were stripped/rounded.</li><li>The depth to bottom for EW-2B was measured at 132.5 feet below top of PVC casing (ft btoc). There are conflicting historical well construction data for this location, with one source indicating a screen interval of 132-142 ft btoc, and another 121-131 ft btoc. Due to this uncertainty of the actual screen interval, the pump intake was set near the measured bottom of the well at 132 ft btoc.</li><li>The following deliveries were accepted at the field office (650 Commercial Avenue, Garden City, NY 11530):<ul style="list-style-type: none"><li>Four nitrogen gas tanks from AirGas.</li><li>Two 55-gallon drums from Pine.</li></ul></li><li>IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office. There are currently one full drum and one partially filled drum.</li></ul>						
QC	<p><b>QC ACTIVITIES COMPLETED (including calibration):</b></p> <p>PID and YSIs calibrated.</p>						
H&S	<p><b>HEALTH &amp; SAFETY INFORMATION:</b></p> <p>Tailgate topic was winter weather safety.</p>						
Submittals	<table border="1"><thead><tr><th data-bbox="83 1326 551 1389">DESCRIPTION/TITLE</th><th data-bbox="551 1326 1225 1389">SUBMITTED BY</th><th data-bbox="1225 1326 1581 1389">NOTES</th></tr></thead><tbody><tr><td data-bbox="83 1389 551 1438">None.</td><td data-bbox="551 1389 1225 1438"></td><td data-bbox="1225 1389 1581 1438"></td></tr></tbody></table>	DESCRIPTION/TITLE	SUBMITTED BY	NOTES	None.		
DESCRIPTION/TITLE	SUBMITTED BY	NOTES					
None.							
Prob./Corr. Actions:	<p><b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b></p> <p>None.</p>						
Other	<p><b>SPECIAL NOTES/INSTRUCTIONS</b></p> <p>None.</p>						
Next Day	<p><b>EXPECTED ACTIVITIES FOR TOMORROW:</b></p> <p>Sampling will continue tomorrow 12/4.</p>						

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 12/03/19	<b>Description:</b> Purging at MW-16S/D.	
<b>Photo No.</b> 2	<b>Date:</b> 12/03/19	<b>Description:</b> Work area coned off during MW-16S/D sampling.	

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/03/19	<b>Description:</b> Purging setup at MW-16S.	

<b>Photo No.</b> 4	<b>Date:</b> 12/03/19	<b>Description:</b> Teflon lining of sampling tubing.	
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## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Overcast 30/40 F	PREPARED BY: Thomas Giordano		DATE: 12/04/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
	Jiss Philip	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.

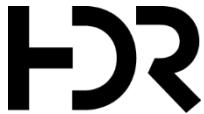


Work Activities and Details	<p><b>WORK ACTIVITES COMPLETED:</b></p> <ul style="list-style-type: none"><li>HDR continued groundwater sampling.<ul style="list-style-type: none"><li>Four wells were sampled for trace VOCs analysis. EX-2 and MW-11D were sampled using low-flow methodology. MW-11S and MW-13 did not achieve full stabilization of all water quality parameters and were sampled after low-flow purging for two hours each.</li><li>A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>All samples from today were shipped to Chemtech via FedEx: AirBill number 7771 4348 4926.</li><li>A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office. There are currently one full drum and one partially filled drum.</li></ul>						
QC	<p><b>QC ACTIVITIES COMPLETED (including calibration):</b></p> <p>PID and YSIs calibrated.</p>						
H&S	<p><b>HEALTH &amp; SAFETY INFORMATION:</b></p> <p>Tailgate topic was hydration.</p>						
Submittals	<table border="1"><thead><tr><th data-bbox="73 1100 546 1178">DESCRIPTION/TITLE</th><th data-bbox="546 1100 1225 1178">SUBMITTED BY</th><th data-bbox="1225 1100 1581 1178">NOTES</th></tr></thead><tbody><tr><td data-bbox="73 1178 546 1227">None.</td><td data-bbox="546 1178 1225 1227"></td><td data-bbox="1225 1178 1581 1227"></td></tr></tbody></table>	DESCRIPTION/TITLE	SUBMITTED BY	NOTES	None.		
DESCRIPTION/TITLE	SUBMITTED BY	NOTES					
None.							
Prob./Corr. Actions:	<p><b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b></p> <p>EW-2C will not be sampled during this event, due to the access issues detailed in yesterday's report (12/3).</p>						
Other	<p><b>SPECIAL NOTES/INSTRUCTIONS</b></p> <p>None.</p>						
Next Day	<p><b>EXPECTED ACTIVITIES FOR TOMORROW:</b></p> <p>Sampling will continue tomorrow 12/5.</p>						

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 12/04/19	<b>Description:</b> Purging at MW-13.  	
<b>Photo No.</b> 2	<b>Date:</b> 12/04/19	<b>Description:</b> Sampling setup at MW-13.  	

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/04/19	<b>Description:</b> Labeled and sealed samples.	

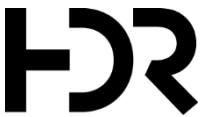
<b>Photo No.</b> 4	<b>Date:</b> 12/04/19	<b>Description:</b> Packed and sealed sample cooler.	
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## DAILY QUALITY CONTROL REPORT

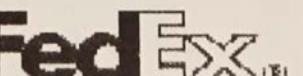
Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Overcast 27/40 F	PREPARED BY: Jiss Philip		DATE: 12/05/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Jiss Philip	HDR		Lead	
	James Koval	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.

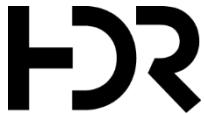


Work Activities and Details	<p><b>WORK ACTIVITES COMPLETED:</b></p> <ul style="list-style-type: none"><li>HDR continued groundwater sampling.<ul style="list-style-type: none"><li>Three wells were sampled for trace VOCs analysis. MW-6, MW-5 and MW-12 were sampled using low-flow methodology. A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>All samples from today were shipped to Chemtech via FedEx: AirBill number 7771 6169 0764.</li><li>A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office. There are currently one full drum and one partially filled drum.</li></ul>						
QC	<p><b>QC ACTIVITIES COMPLETED (including calibration):</b></p> <p>PID and YSIs calibrated.</p>						
H&S	<p><b>HEALTH &amp; SAFETY INFORMATION:</b></p> <p>Tailgate topic was hydration.</p>						
Submittals	<table border="1"><thead><tr><th data-bbox="73 1098 546 1172">DESCRIPTION/TITLE</th><th data-bbox="546 1098 1232 1172">SUBMITTED BY</th><th data-bbox="1232 1098 1573 1172">NOTES</th></tr></thead><tbody><tr><td data-bbox="73 1172 546 1214">None.</td><td data-bbox="546 1172 1232 1214"></td><td data-bbox="1232 1172 1573 1214"></td></tr></tbody></table>	DESCRIPTION/TITLE	SUBMITTED BY	NOTES	None.		
DESCRIPTION/TITLE	SUBMITTED BY	NOTES					
None.							
Prob./Corr. Actions:	<p><b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b></p> <p>EW-2C will not be sampled during this event, due to the access issues detailed in yesterday's report (12/3).</p>						
Other	<p><b>SPECIAL NOTES/INSTRUCTIONS</b></p> <p>None.</p>						
Next Day	<p><b>EXPECTED ACTIVITIES FOR TOMORROW:</b></p> <p>Sampling will continue tomorrow 12/6.</p>						

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 12/05/19	<b>Description:</b> Purging at MW-12.	
<b>Photo No.</b> 2	<b>Date:</b> 12/05/19	<b>Description:</b> Sampling setup at MW-12.	

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/05/19	 <p><b>Description:</b> FedEx receipt after dropping off cooler</p> <p>Address: 510 STEWART AVENUE GARDEN CITY NY 11530</p> <p>Location: BPAA</p> <p>Device ID: -BTC05</p> <hr/> <p>FedEx Express Package(s) - Dropped Off 777161690764</p>	

<b>Photo No.</b> 4	<b>Date:</b> 12/05/19	<p><b>Description:</b> COC for the day</p> <p>Page 1 of 1</p> <p><b>USEPA CLP COC (LAB COPY)</b></p> <p>Date Shipped: 12/5/2019</p> <p>CarrierName: FedEx</p> <p>AirbillNo: 7771 6169 0764</p> <p><b>CHAIN OF CUSTODY RECORD</b></p> <p>Case #: 48602</p> <p>Cooler #: 1</p> <table border="1"> <thead> <tr> <th>Sample Identifier</th> <th>CLP Sample No.</th> <th>Matrix/Sampler</th> <th>Coll. Method</th> <th>Analysis/Turnaround (Days)</th> <th>Tag/Preservative/Bottles</th> <th>Location</th> <th>Collection Date/Time</th> <th>For Lab Use Only</th> </tr> </thead> <tbody> <tr> <td>EB-20191205</td> <td>BFE42</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1034 (HCl) (3)</td> <td>EB</td> <td>12/05/2019 08:10</td> <td></td> </tr> <tr> <td>FB-20191205</td> <td>BFE43</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1035 (HCl) (3)</td> <td>FB</td> <td>12/05/2019 08:15</td> <td></td> </tr> <tr> <td>TB-20191205</td> <td>BFE44</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1036 (HCl) (3)</td> <td>TB</td> <td>12/05/2019 08:05</td> <td></td> </tr> <tr> <td>MW-5-20191205</td> <td>BFE45</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1037 (HCl) (3)</td> <td>MW-5</td> <td>12/05/2019 11:15</td> <td></td> </tr> <tr> <td>MW-6-20191205</td> <td>BFE46</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1038 (HCl) (3)</td> <td>MW-6</td> <td>12/05/2019 11:40</td> <td></td> </tr> <tr> <td>MW-10-20191205</td> <td>BFE47</td> <td>Ground Water/</td> <td>Grab</td> <td>TVOA(21)</td> <td>1039 (HCl) (3)</td> <td>MW-10</td> <td>12/05/2019 15:00</td> <td></td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> </tbody> </table>	Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only	EB-20191205	BFE42	Ground Water/	Grab	TVOA(21)	1034 (HCl) (3)	EB	12/05/2019 08:10		FB-20191205	BFE43	Ground Water/	Grab	TVOA(21)	1035 (HCl) (3)	FB	12/05/2019 08:15		TB-20191205	BFE44	Ground Water/	Grab	TVOA(21)	1036 (HCl) (3)	TB	12/05/2019 08:05		MW-5-20191205	BFE45	Ground Water/	Grab	TVOA(21)	1037 (HCl) (3)	MW-5	12/05/2019 11:15		MW-6-20191205	BFE46	Ground Water/	Grab	TVOA(21)	1038 (HCl) (3)	MW-6	12/05/2019 11:40		MW-10-20191205	BFE47	Ground Water/	Grab	TVOA(21)	1039 (HCl) (3)	MW-10	12/05/2019 15:00																																					
Sample Identifier	CLP Sample No.		Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only																																																																																												
EB-20191205	BFE42	Ground Water/	Grab	TVOA(21)	1034 (HCl) (3)	EB	12/05/2019 08:10																																																																																														
FB-20191205	BFE43	Ground Water/	Grab	TVOA(21)	1035 (HCl) (3)	FB	12/05/2019 08:15																																																																																														
TB-20191205	BFE44	Ground Water/	Grab	TVOA(21)	1036 (HCl) (3)	TB	12/05/2019 08:05																																																																																														
MW-5-20191205	BFE45	Ground Water/	Grab	TVOA(21)	1037 (HCl) (3)	MW-5	12/05/2019 11:15																																																																																														
MW-6-20191205	BFE46	Ground Water/	Grab	TVOA(21)	1038 (HCl) (3)	MW-6	12/05/2019 11:40																																																																																														
MW-10-20191205	BFE47	Ground Water/	Grab	TVOA(21)	1039 (HCl) (3)	MW-10	12/05/2019 15:00																																																																																														
<p>No: 2-120519-131509-0007</p> <p>Lab: Chemtech Consulting Group</p> <p>Lab Contact: Mohammad Ahmed</p> <p>Lab Phone: 908-789-8900</p>																																																																																																					



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Overcast 27/40 F	PREPARED BY: Jiss Philip		DATE: 12/06/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Jiss Philip	HDR		Lead	
	James Koval	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.



Work Activities and Details	<p><b>WORK ACTIVITES COMPLETED:</b></p> <ul style="list-style-type: none"><li>HDR continued groundwater sampling.<ul style="list-style-type: none"><li>Three wells were sampled for trace VOCs analysis. MW-7and MW-8 were sampled using low-flow methodology. A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>All samples from today were shipped to Chemtech via FedEx: AirBill number 7771 6899 0171.</li><li>A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office. There are currently one full drum and one partially filled drum.</li></ul>						
QC	<p><b>QC ACTIVITIES COMPLETED (including calibration):</b></p> <p>PID and YSIs calibrated.</p>						
H&S	<p><b>HEALTH &amp; SAFETY INFORMATION:</b></p> <p>Tailgate topic was trip hazards.</p>						
Submittals	<table border="1"><thead><tr><th data-bbox="83 1100 540 1142">DESCRIPTION/TITLE</th><th data-bbox="540 1100 1225 1142">SUBMITTED BY</th><th data-bbox="1225 1100 1581 1142">NOTES</th></tr></thead><tbody><tr><td data-bbox="83 1142 540 1220">None.</td><td data-bbox="540 1142 1225 1220"></td><td data-bbox="1225 1142 1581 1220"></td></tr></tbody></table>	DESCRIPTION/TITLE	SUBMITTED BY	NOTES	None.		
DESCRIPTION/TITLE	SUBMITTED BY	NOTES					
None.							
Prob./Corr. Actions:	<p><b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b></p> <p>EW-2C will not be sampled during this event, due to the access issues detailed in yesterday's report (12/3).</p>						
Other	<p><b>SPECIAL NOTES/INSTRUCTIONS</b></p> <p>None.</p>						
Next Day	<p><b>EXPECTED ACTIVITIES FOR TOMORROW:</b></p> <p>Sampling will continue Monday 12/9.</p>						

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 12/06/19	<b>Description:</b> Purging at MW-8.	
<b>Photo No.</b> 2	<b>Date:</b> 12/06/19	<b>Description:</b> Sampling setup at MW-7	

# PHOTOGRAPHIC LOG

Page 4 of 4



**Client Name/Contract**

USEPA Region 2 / EP-W-09-009

**Site Location:**

USEPA NCHGW OU1/Nassau County

**Project No.**

10163267

<b>Photo No.</b>	<b>Date:</b>
3	12/06/19

**Description:**  
Well Sampling Log for MW-7

Well Sampling Log											
Site: New Cassel		Date: 12/6/19		Weather:		Company Field Personnel: HDR JK/JP		Sheet of			
Monitor Well #: MW-7		Well Depth: 90-110		Well Diameter: Inches		Pump Intake Depth: 98		Ft Below TOC			
PID Readings (ppm):		Background:		Screened/Open Interval: 90-110		Pump Intake Depth: 98		Ft Below TOC			
Monitor Well #: MW-7		Well Permit #:		Depth to Water Before Pump Installation: 30		Make/Model of Pump:		Ft below TOC			
TIME	Purging Sampling	Temperature (degrees C)	pH (pH Units)	Redox Potential (mV)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Pumping Rate (ml/min)	Depth To Water (ft below TOC)		
		Reading Change*	Reading Change*	Reading Change*	Reading Change*	Reading Change*	Reading Change*	Reading Change*	Reading Change*		
905	X	12.85	8.61	203.1	0.269	8.70	5.77	210	XII		
920	X	12.85	8.64	202.0	0.277	8.55	8.4	210	XII		
930	X	12.83	8.64	202.6	0.276	8.89	8.4	210	XII		
935	X	12.88	8.18	202.6	0.300	7.53	6.0	210	XII		
940	X	13.56	6.92	205.7	0.306	7.17	7.83	210	XII		
945	X	13.62	6.84	205.3	0.306	7.12	7.84	210	XII		
950	X	13.59	6.85	202.3	0.306	7.22	8.0	210	XII		
955	X	13.62	6.84	200.4	0.305	7.36	8.16	210	XII		
960	X	13.60	6.85	201.6	0.305	7.30	8.11	210	XII		
1005	X	13.61	6.88	203.3	0.296	7.38	8.26	210	XII		
1010	X	13.62	6.89	203.6	0.294	7.10	8.29	210	XII		
1015	X	13.61	6.90	203.6	0.292	7.00	8.06	210	XII		
1020	X	13.61	6.92	203.6	0.292	6.92	7.2	210	XII		
1025	X	13.59	6.93	203.3	0.293	6.91	6.88	210	XII		
1030	X	13.53	6.93	203.8	0.294	6.86	3.6	210	XII		
				206.1	0.298	6.92	3.7	210	XII		
				206.2	0.291	6.91	3.7	210	XII		

<b>Photo No.</b>	<b>Date:</b>
4	12/06/19

**Description:**  
COC for the day

Page 1 of 1

USEPA CLP COC (LAB COPY)

Date Shipped: 12/6/2019

Carrier Name: FedEx

Airbill No: 7771 6899 0171

CHAIN OF CUSTODY RECORD

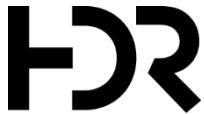
No: 2-120619-120146-0008

Lab: Chemtech Consulting Group

Lab Contact: Mohammad Ahmed

Lab Phone: 908-789-8900

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
EB-20191206	BFE48	Ground Water/Grab		TVOA(21)	1040 (HCl) (3)	EB	12/06/2019 07:15	
FB-20191206	BFE49	Ground Water/Grab		TVOA(21)	1041 (HCl) (3)	FB	12/06/2019 07:20	
TB-20191206	BFE50	Ground Water/Grab		TVOA(21)	1042 (HCl) (3)	TB	12/06/2019 07:10	
MW-7-20191206	BFE51	Ground Water/Grab		TVOA(21)	1043 (HCl) (3)	MW-7	12/06/2019 11:10	
MW-8-20191206	BFE52	Ground Water/Grab		TVOA(21)	1044 (HCl) (3)	MW-8	12/06/2019 10:55	



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Overcast, rainy, 53/55 F	PREPARED BY: Thomas Giordano		DATE: 12/09/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.



Work Activities and Details	<b>WORK ACTIVITES COMPLETED:</b>		
	<ul style="list-style-type: none"><li>HDR continued groundwater sampling.<ul style="list-style-type: none"><li>Three wells were sampled for trace VOCs analysis. MW-17D, MW-17S, and MW-15 were sampled using low-flow methodology.</li><li>A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>A field duplicate sample was collected at MW-15.</li><li>All samples from today were shipped to Chemtech via FedEx: AirBill number 7771 8878 4540.</li><li>A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>IDW (purged groundwater) was transferred to a 55-gallon drum staged in the parking lot in front of the field office. There are currently two filled and one partially filled drums.</li></ul>		
QC	<b>QC ACTIVITIES COMPLETED (including calibration):</b>		
	PID and YSIs calibrated.		
H&S	<b>HEALTH &amp; SAFETY INFORMATION:</b>		
	Tailgate topic was slips, trips, and falls.		
Submittals	DESCRIPTION/TITLE	SUBMITTED BY	NOTES
	None.		
Prob./Corr. Actions:	<b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b>		
	None.		
Other	<b>SPECIAL NOTES/INSTRUCTIONS</b>		
	None.		
Next Day	<b>EXPECTED ACTIVITIES FOR TOMORROW:</b>		
	Sampling will continue tomorrow 12/10.		

**Client Name/Contract**  
USEPA Region 2 / EP-W-09-009

**Site Location:**  
USEPA NCHGW OU1/Nassau County

**Project No.**  
10163267

**Photo No.** 1      **Date:** 12/09/19

**Description:**  
Purging at MW-17S/D.

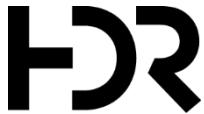


**Photo No.** 2      **Date:** 12/09/19

**Description:**  
Tubing spool.



<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/09/19	<b>Description:</b> Sampling at MW-15.	
<b>Photo No.</b> 4	<b>Date:</b> 12/09/19	<b>Description:</b> Taking water quality readings at MW-15.	



## DAILY QUALITY CONTROL REPORT

Page 1 of 4

General	PROJECT: 10163267 / NCHGW OU1	LOCATION: Nassau County, NY			
	WEATHER CONDITIONS: Overcast, rainy, 54/58 F	PREPARED BY: Thomas Giordano		DATE: 12/10/19	
Personnel Onsite	NAME	COMPANY/AFFILIATION		NOTES	
	Thomas Giordano	HDR		Lead	
	James Koval	HDR			
Site Equipment	DESCRIPTION	QUANTITY	USED (Y/N)	NOTES	
	1.66" Geotech pump (18")	2	Y	Drop tube assembly used	
	Nitrogen tanks	2	Y		
	MP-10 controller	2	Y		
	YSI water quality meter	2	Y		
	Lamotte turbidity meter	2	Y		
	PID	2	Y		
Material Inventory	MATERIAL	QUANTITY	UNITS	QUANTITY DELIVERED /USED/SHIP PED OFF	NOTES
	Teflon-lined 3/8" tubing	4000	ft		All tubing is stored in field office.
	Bonded teflon-lined tubing	3200	ft		All tubing is stored in field office.



Work Activities and Details	<b>WORK ACTIVITES COMPLETED:</b>		
	<ul style="list-style-type: none"><li>• HDR concluded Round 1 groundwater sampling.<ul style="list-style-type: none"><li>◦ Two wells were sampled for trace VOCs analysis. MW-12 was sampled using low-flow methodology. EX-1 did not achieve full stabilization of all water quality parameters and was sampled after low-flow purging for two hours.</li><li>◦ A trip blank, field blank, and equipment blank were collected for trace VOCs analysis.</li><li>◦ All samples from today were shipped to Chemtech via FedEx: AirBill number 7771 9810 8966.</li><li>◦ A region copy of the COC (.xml format) was uploaded to the SMO portal.</li></ul></li><li>• HDR demobilized from the site.<ul style="list-style-type: none"><li>◦ All IDW (purged groundwater) is contained in 55-gallon drums staged in the parking lot in front of the field office. There are two filled and one partially filled drum. IDW will be sampled for waste characterization analysis at a future date.</li><li>◦ Excess supplies (e.g., tubing and nitrile gloves) were set aside at HDR's Nanuet office for future use at the New Cassel site.</li><li>◦ Spent nitrogen canisters are scheduled for pickup from the field office by AirGas by Friday 12/12.</li><li>◦ All rental equipment was returned to Pine.</li></ul></li></ul>		
QC	<b>QC ACTIVITIES COMPLETED (including calibration):</b>		
PID and YSIs calibrated.			
H&S	<b>HEALTH &amp; SAFETY INFORMATION:</b>		
Tailgate topic was slips, trips, and falls.			
Submittals	DESCRIPTION/TITLE	SUBMITTED BY	NOTES
	None.		
Prob/Corr. Actions:	<b>PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS TAKEN:</b>		
None.			
Other	<b>SPECIAL NOTES/INSTRUCTIONS</b>		
None.			
Next Day	<b>EXPECTED ACTIVITIES FOR TOMORROW:</b>		
None. Sampling is complete.			

<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 1	<b>Date:</b> 12/10/19	<b>Description:</b> Taking water quality readings at MW-12.	
<b>Photo No.</b> 2	<b>Date:</b> 12/10/19	<b>Description:</b> Purging at MW-12.	

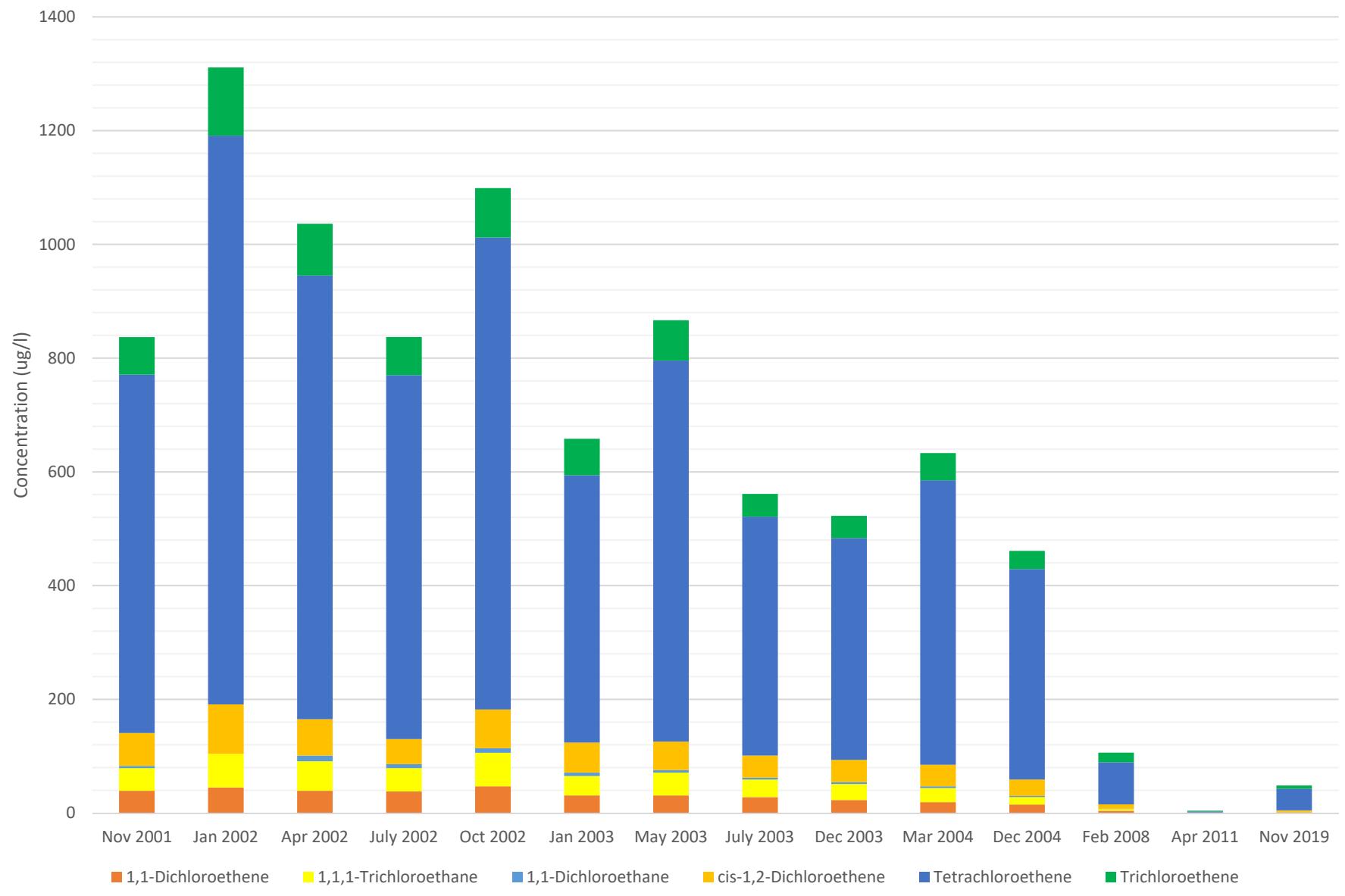
<b>Client Name/Contract</b> USEPA Region 2 / EP-W-09-009		<b>Site Location:</b> USEPA NCHGW OU1/Nassau County	<b>Project No.</b> 10163267
<b>Photo No.</b> 3	<b>Date:</b> 12/10/19	<b>Description:</b> Taking readings at EX-1.	

<b>Photo No.</b> 4	<b>Date:</b> 12/10/19	<b>Description:</b> Rust-color purge water encountered at EX-1.	
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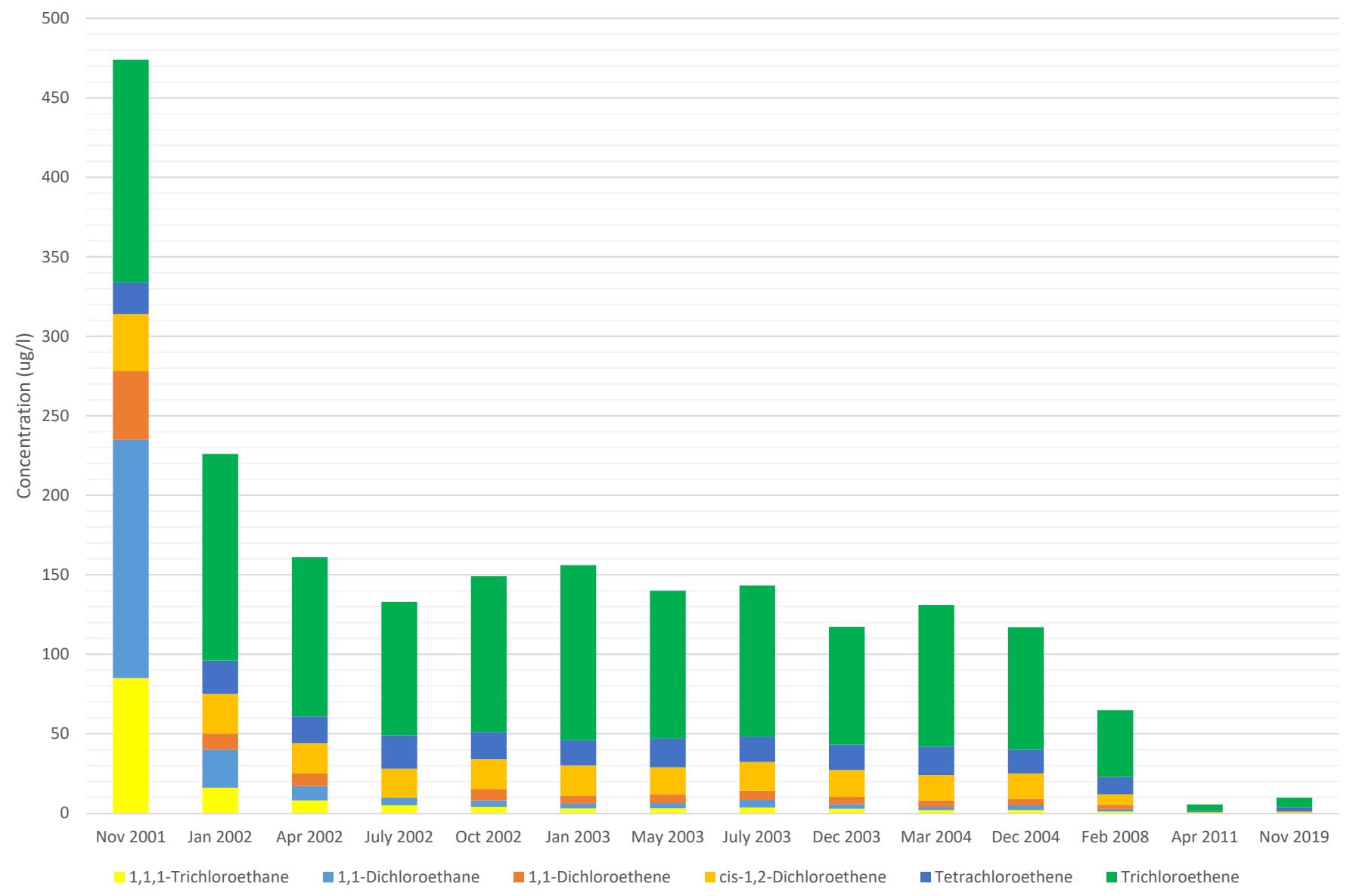
# Appendix F

## Historic Water Quality Graphs

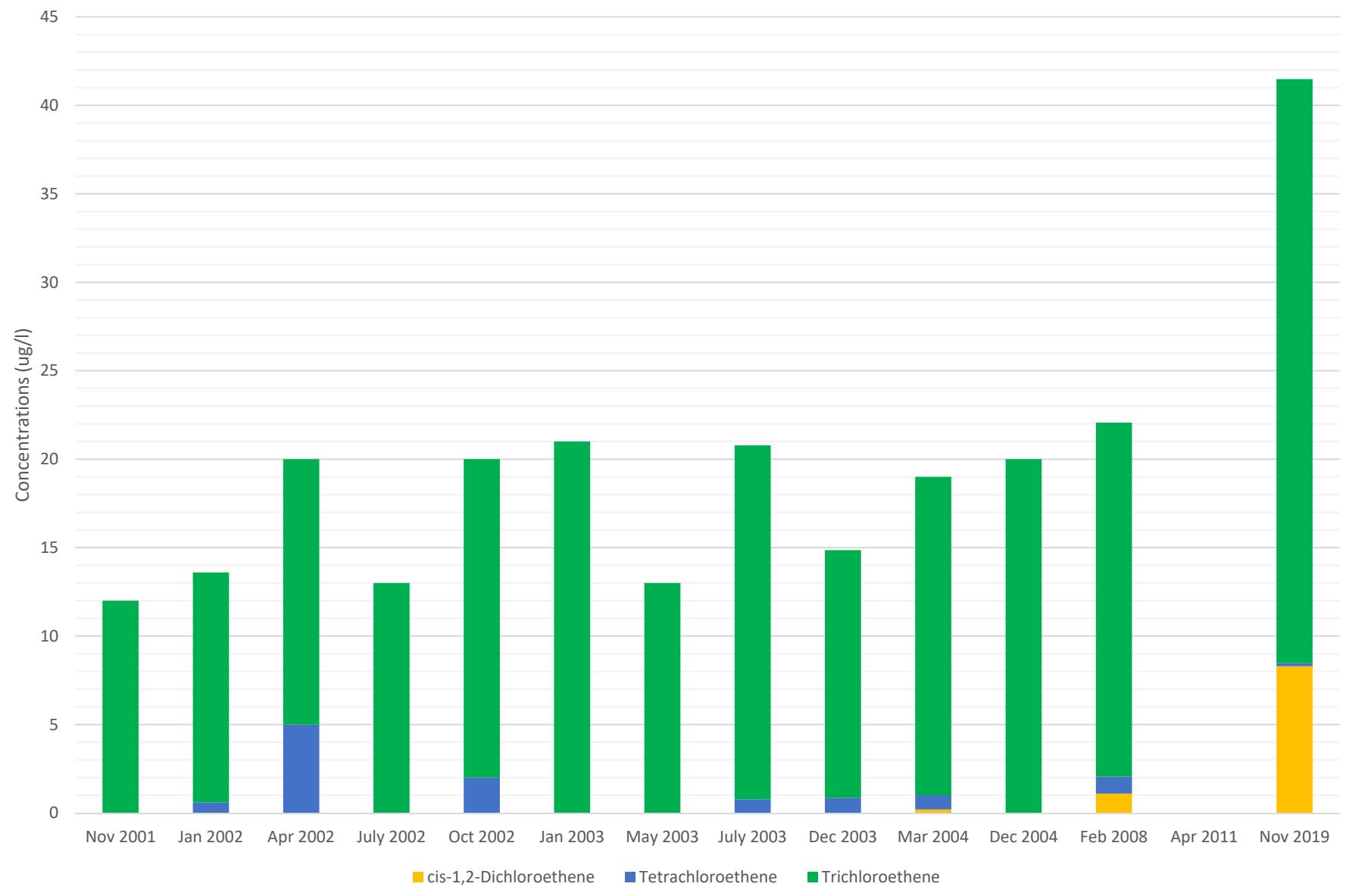
EW-1B  
(154 - 164 ft bgs)



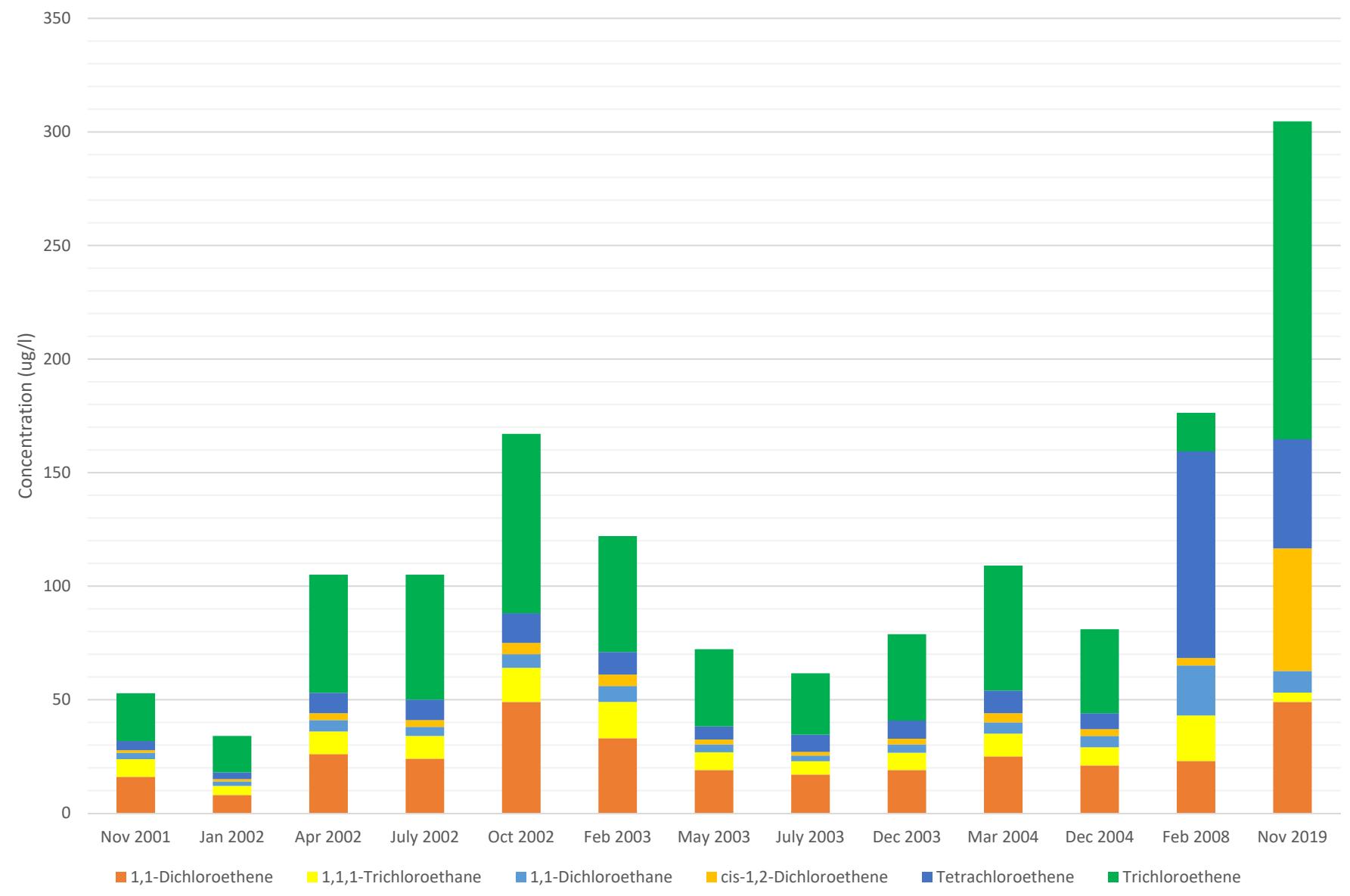
EW-2B  
(132 - 142 ft bgs)



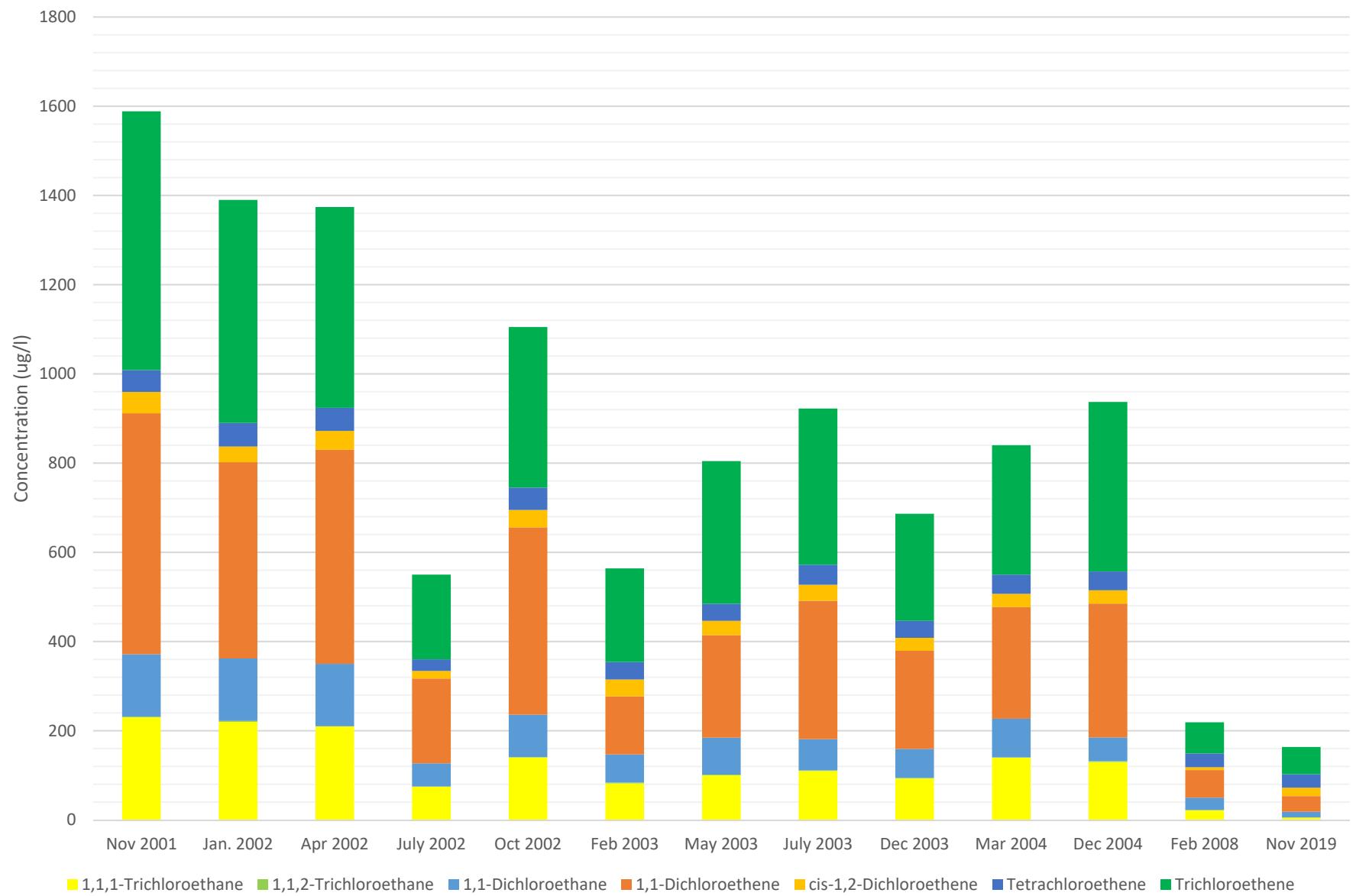
EW-1C  
(506 - 516 ft bgs)



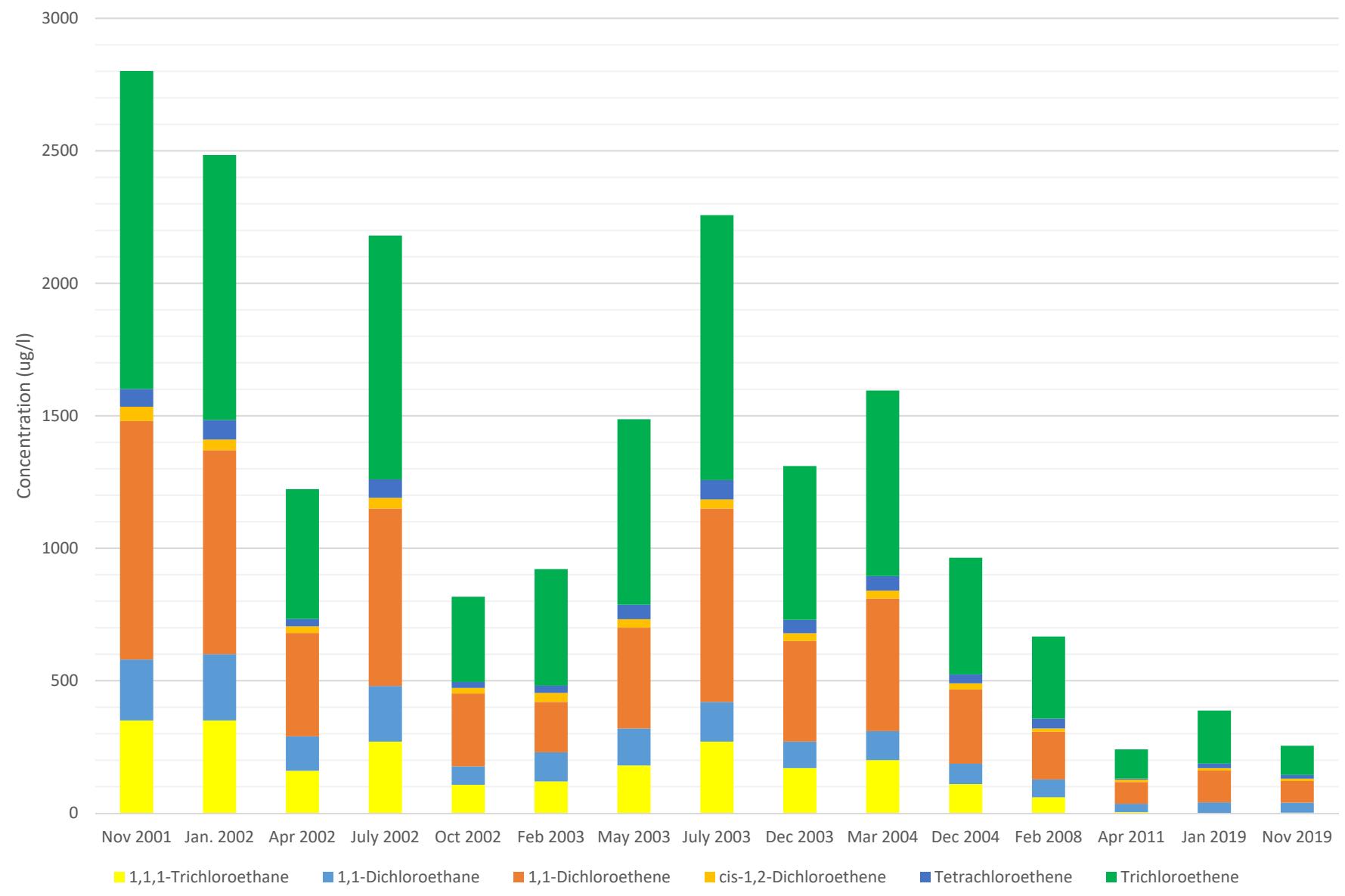
MW-1  
(90 - 110 ft bgs)



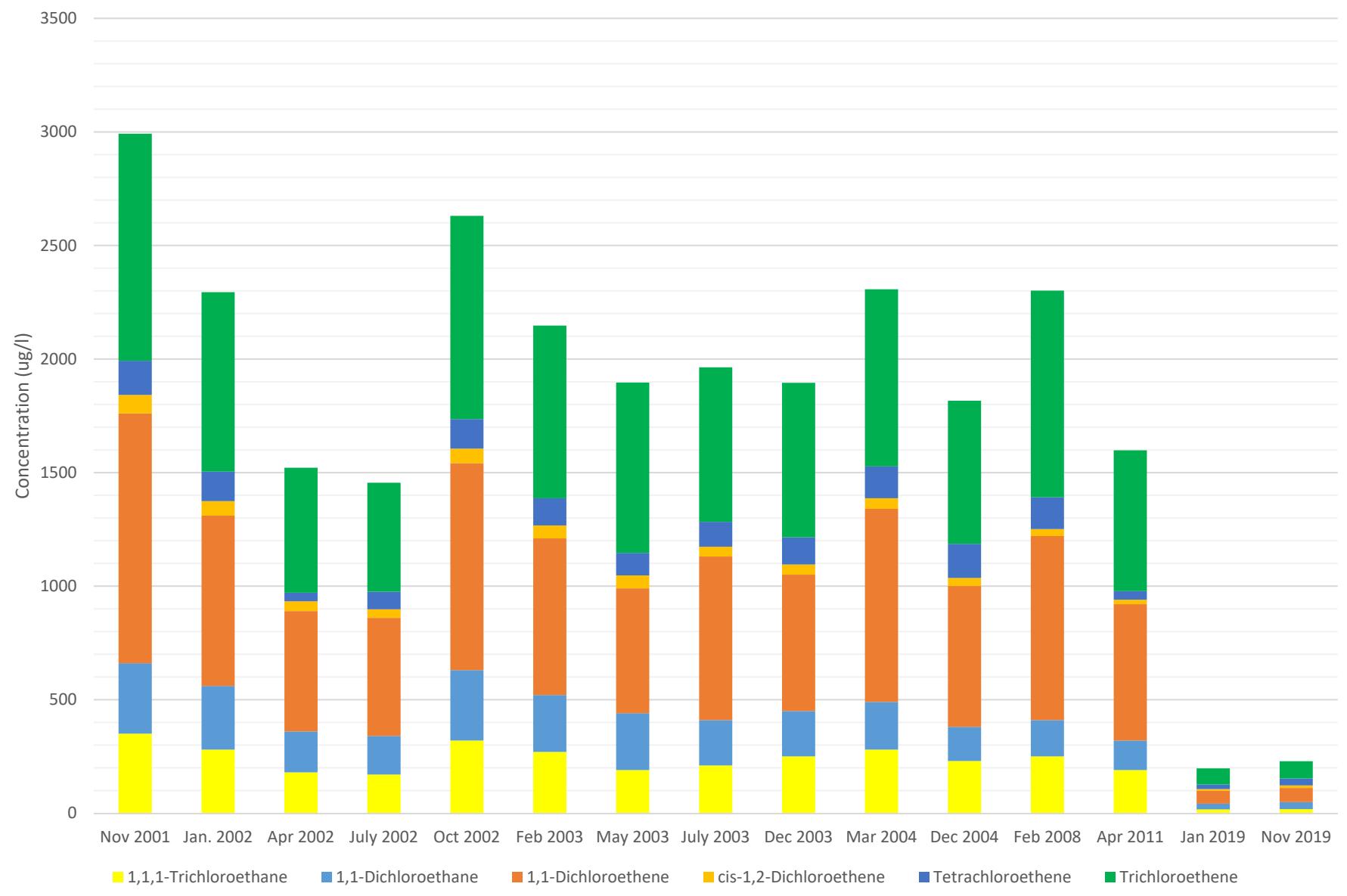
MW-2  
(110 - 130 ft bgs)



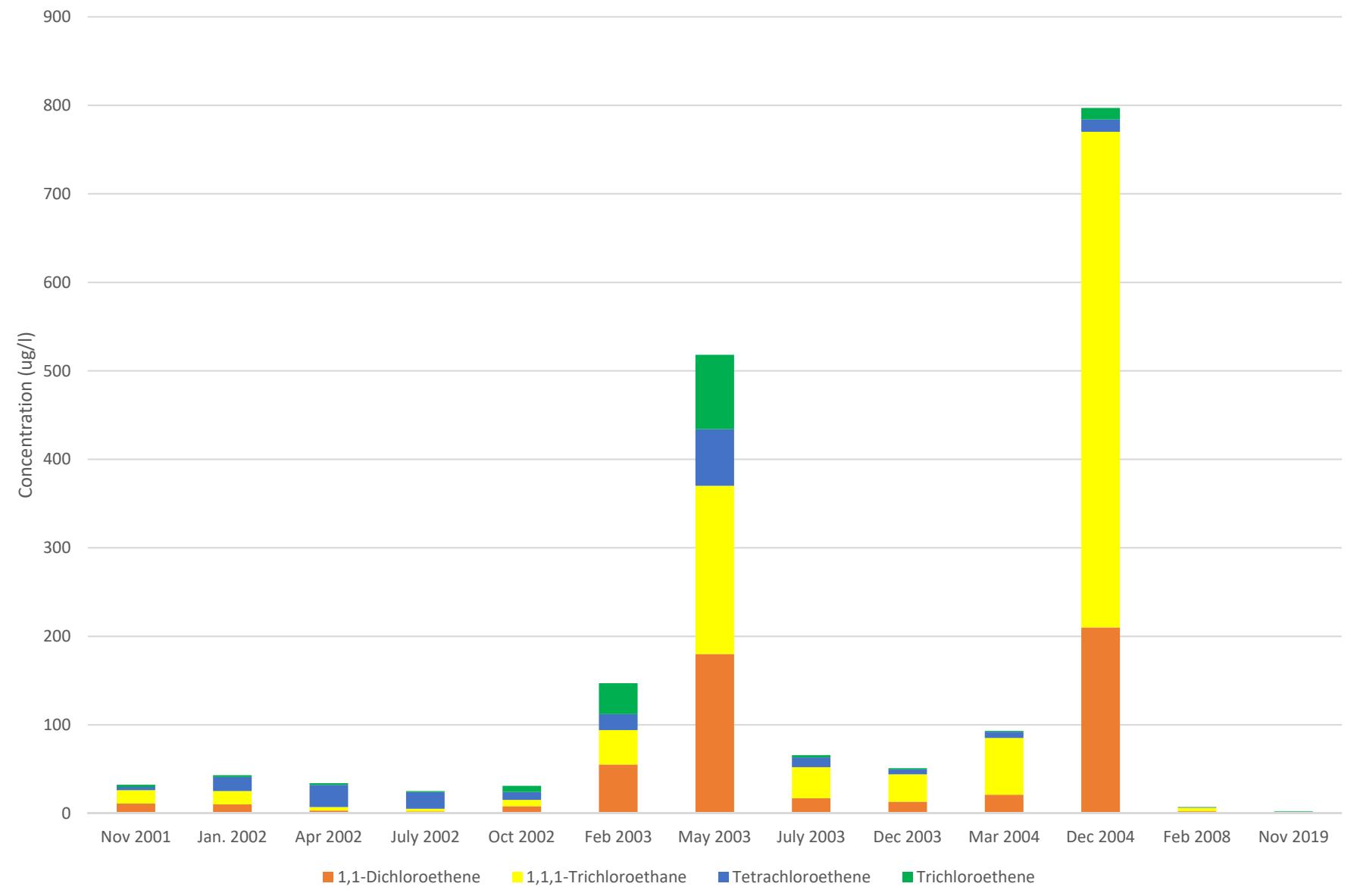
MW-3  
(130 - 150 ft bgs)



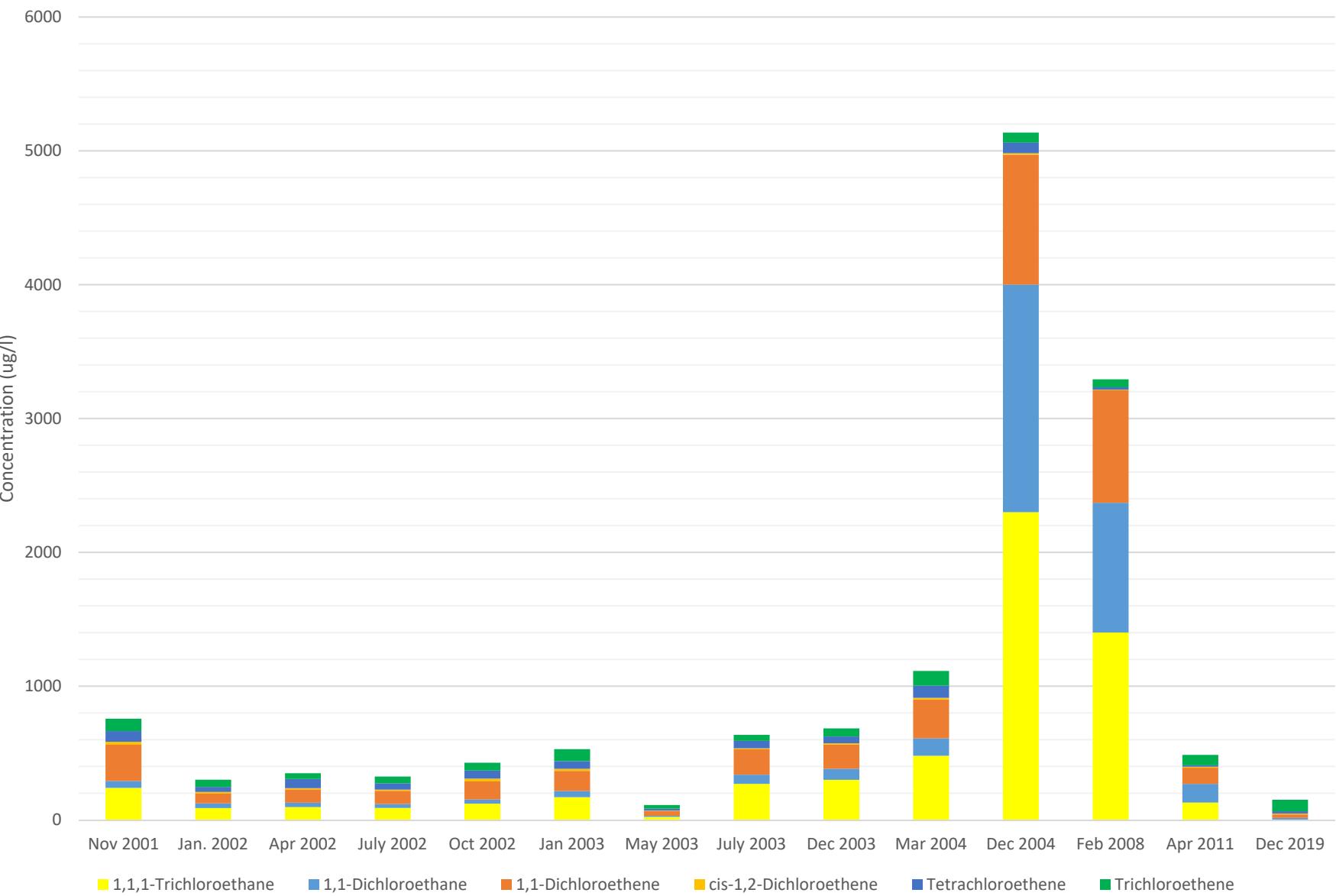
MW-4  
(180 - 200 ft bgs)



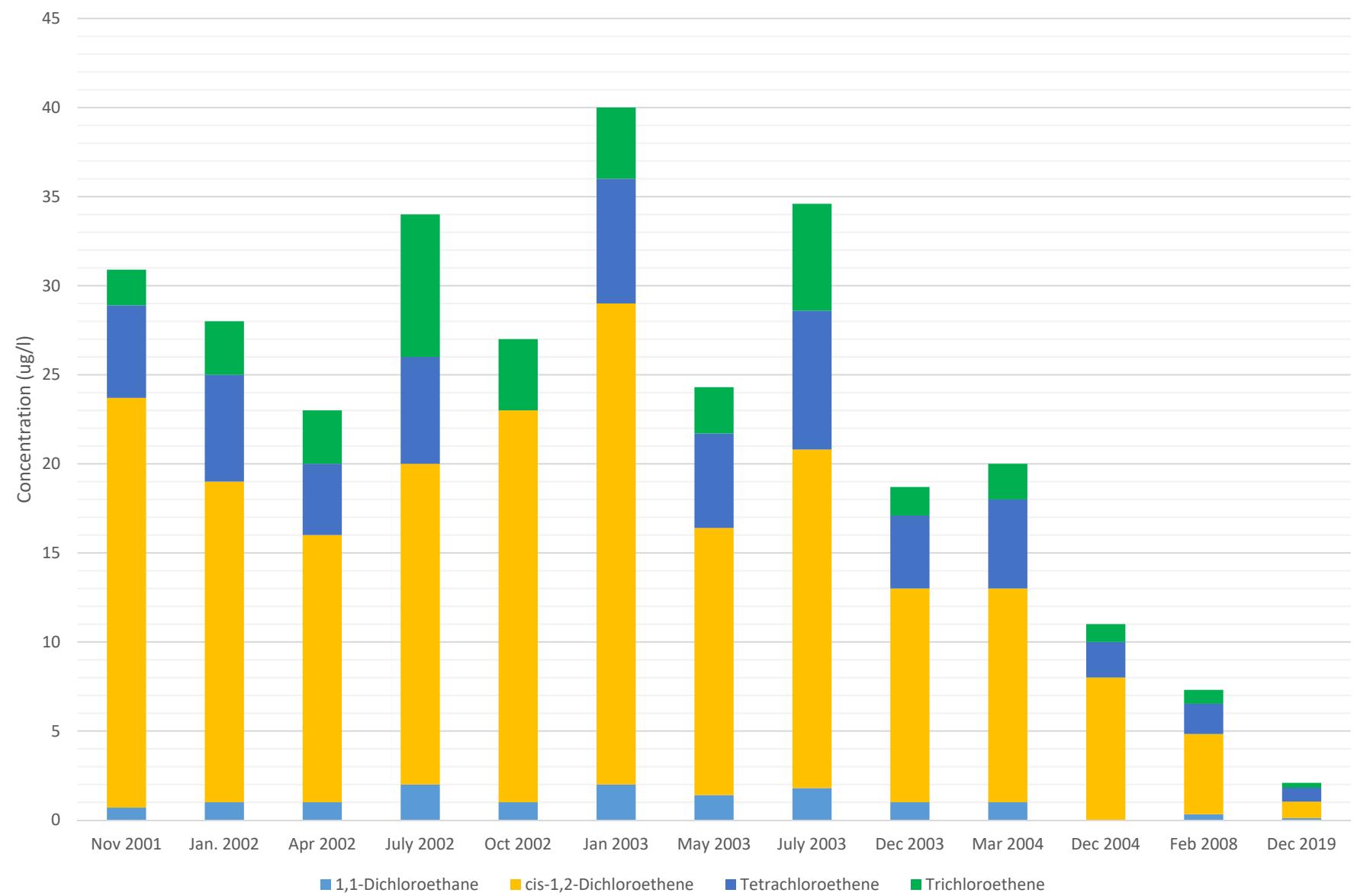
MW-5  
(90 - 110 ft bgs)



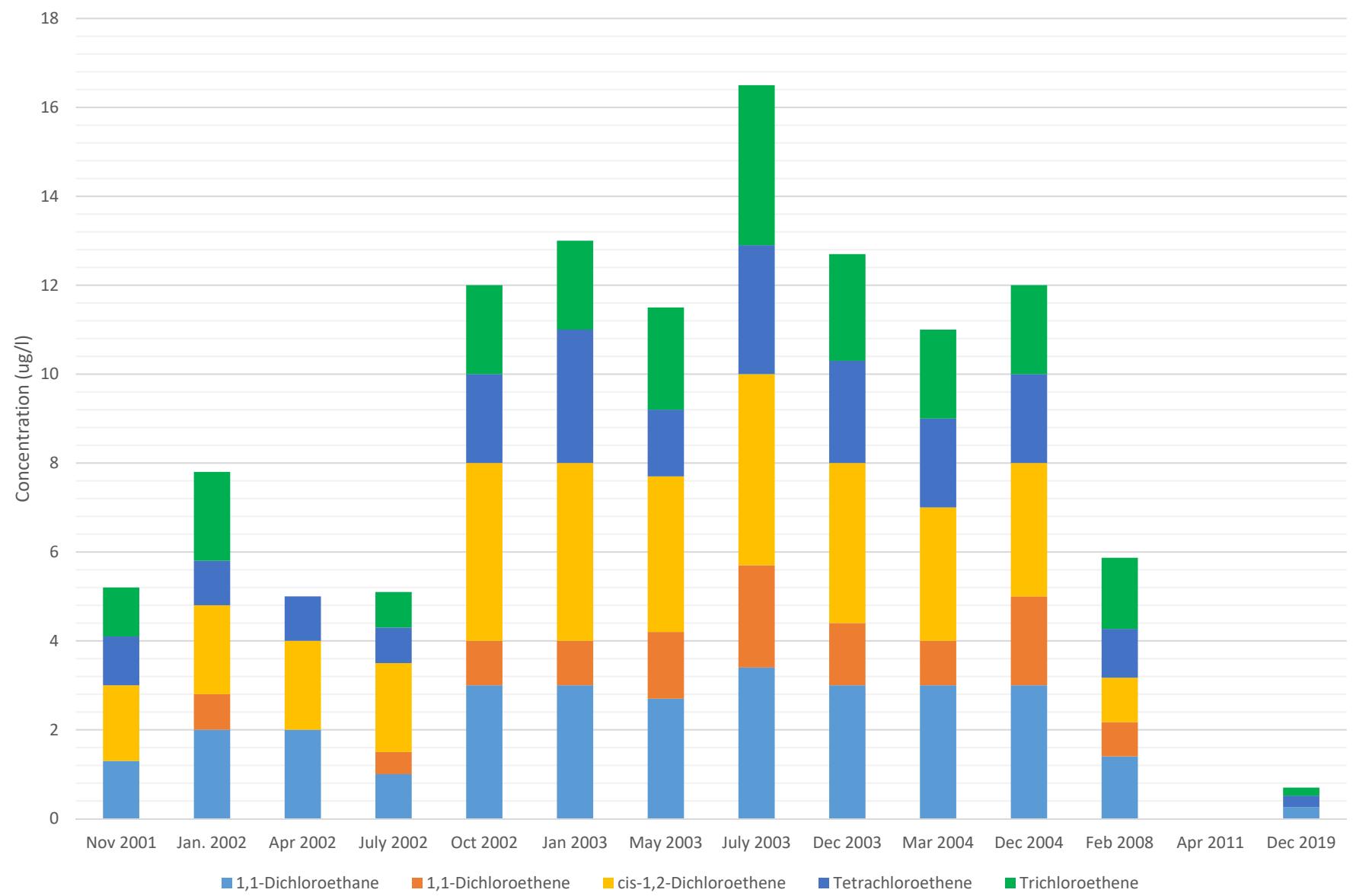
MW-6  
(110 - 130 ft bgs)



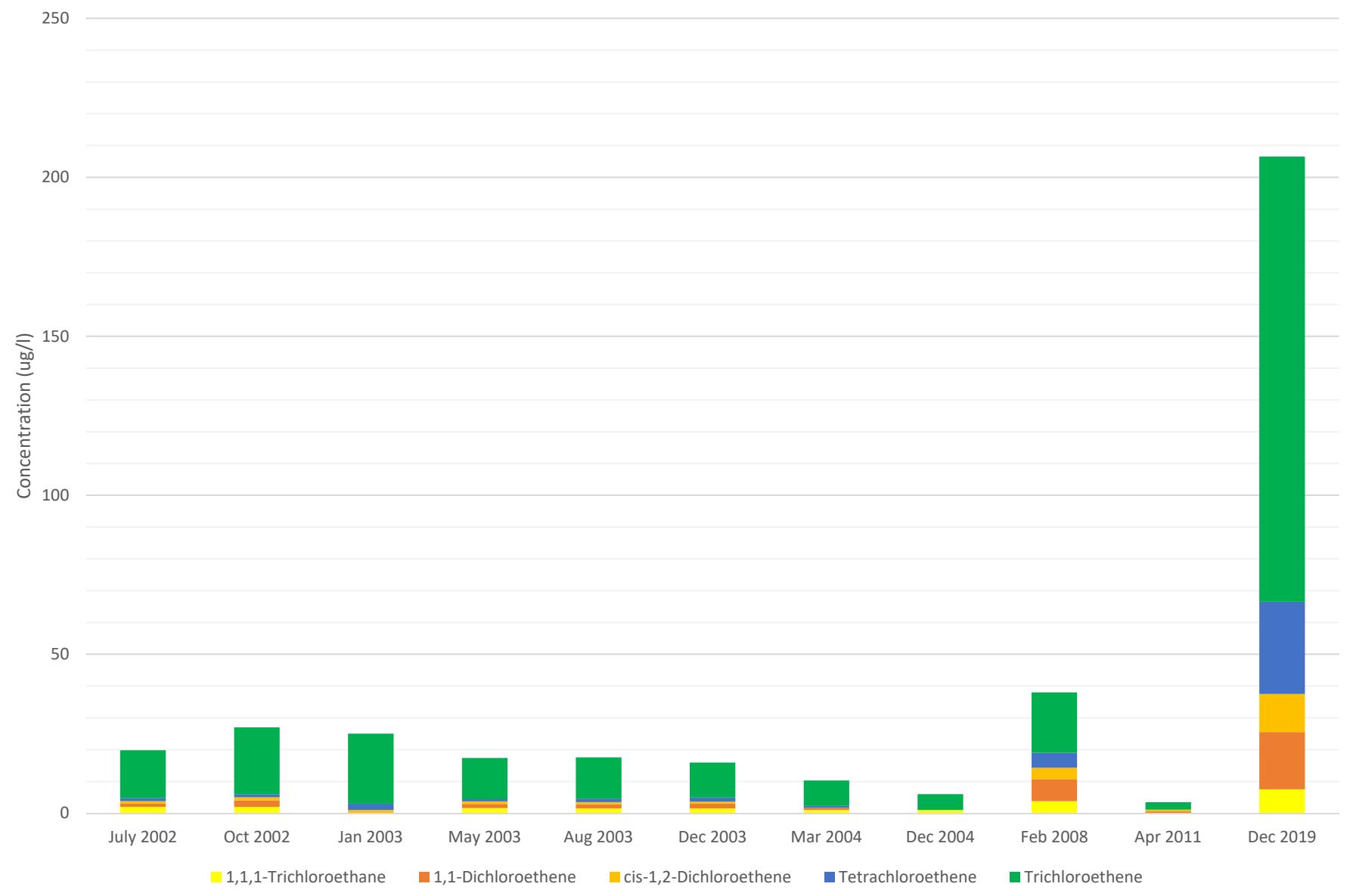
MW-7  
(90 - 110 ft bgs)



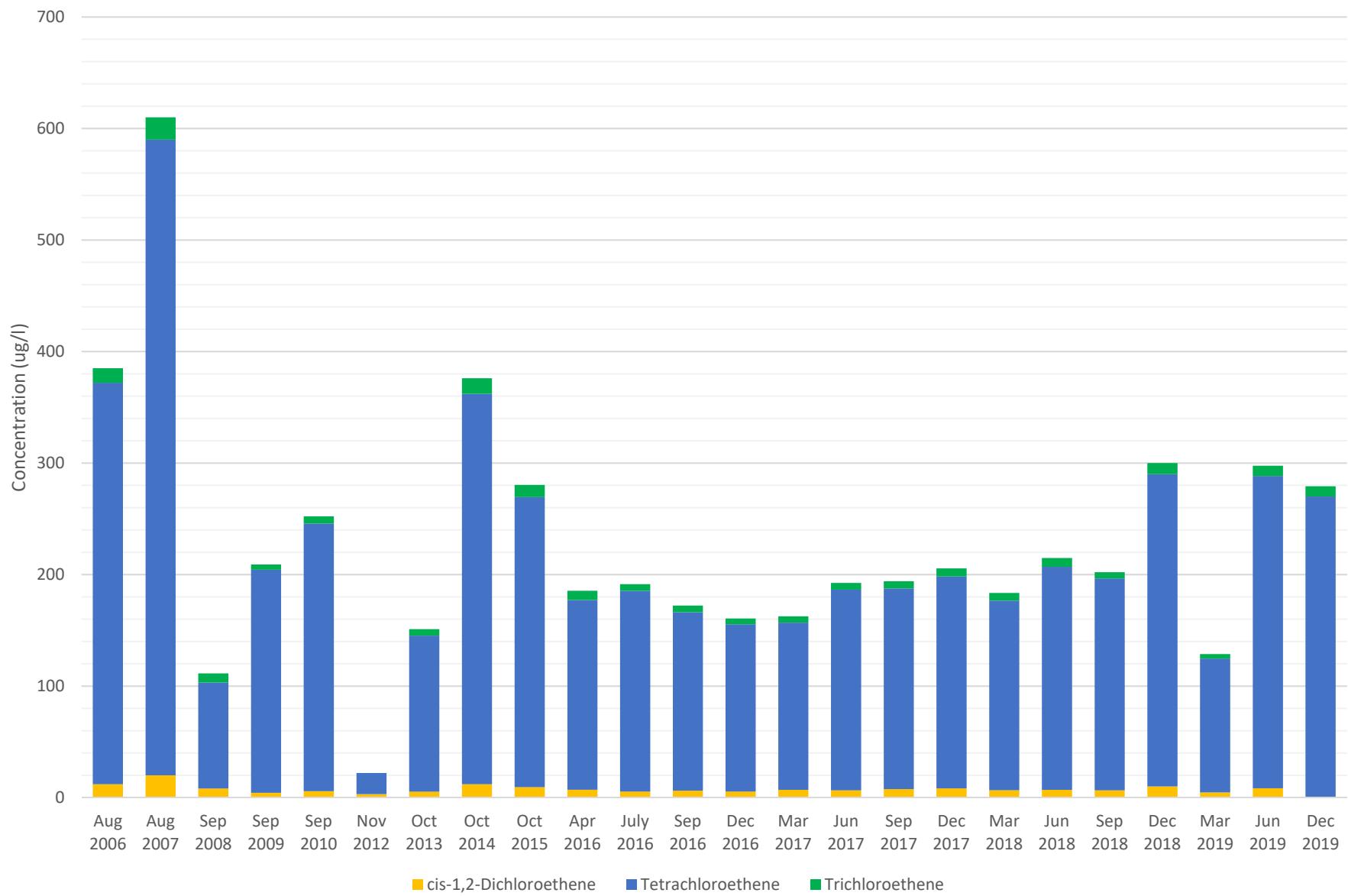
MW-8  
(120 - 140 ft bgs)



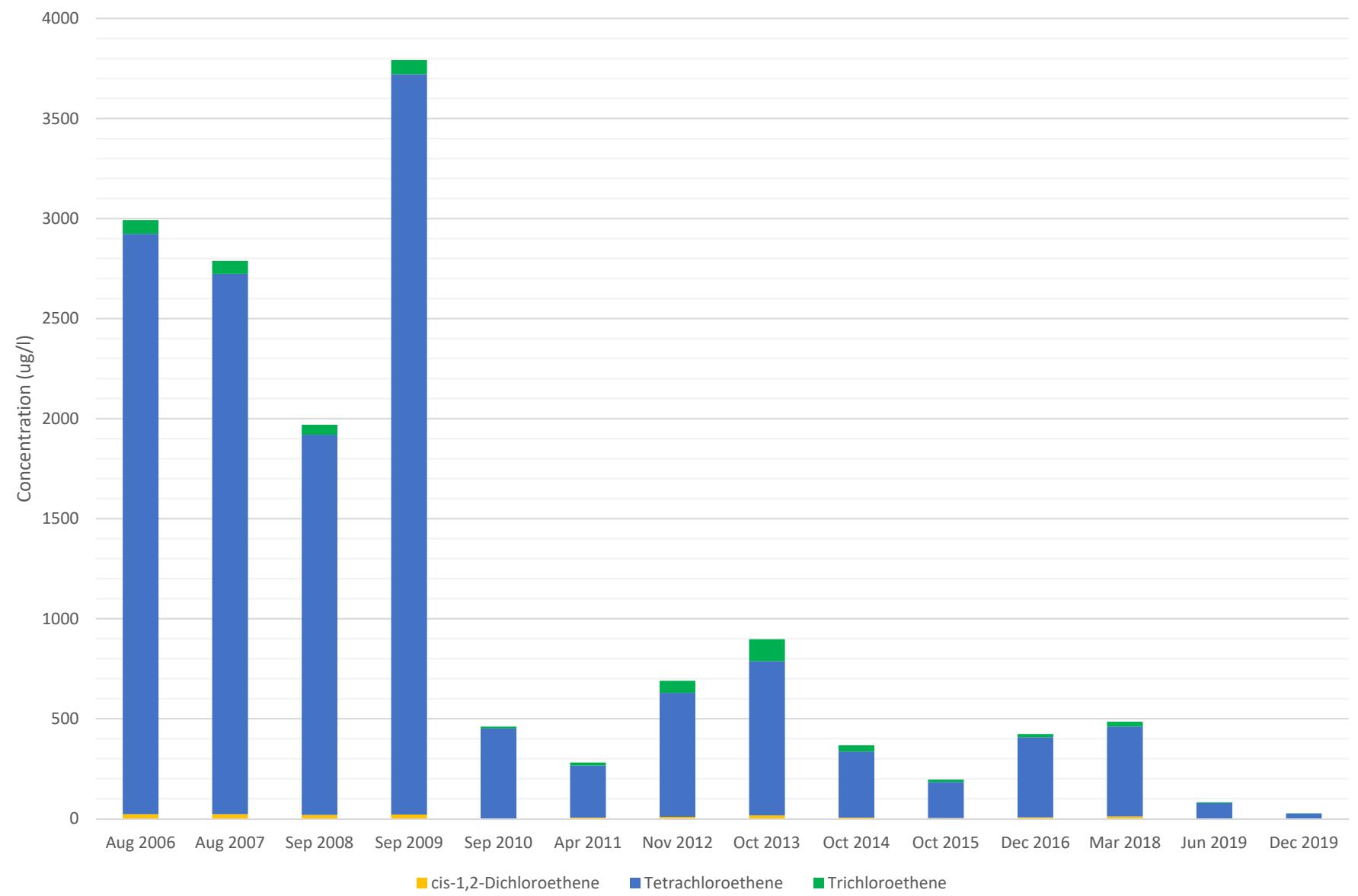
MW-9  
(310 - 315 ft bgs)



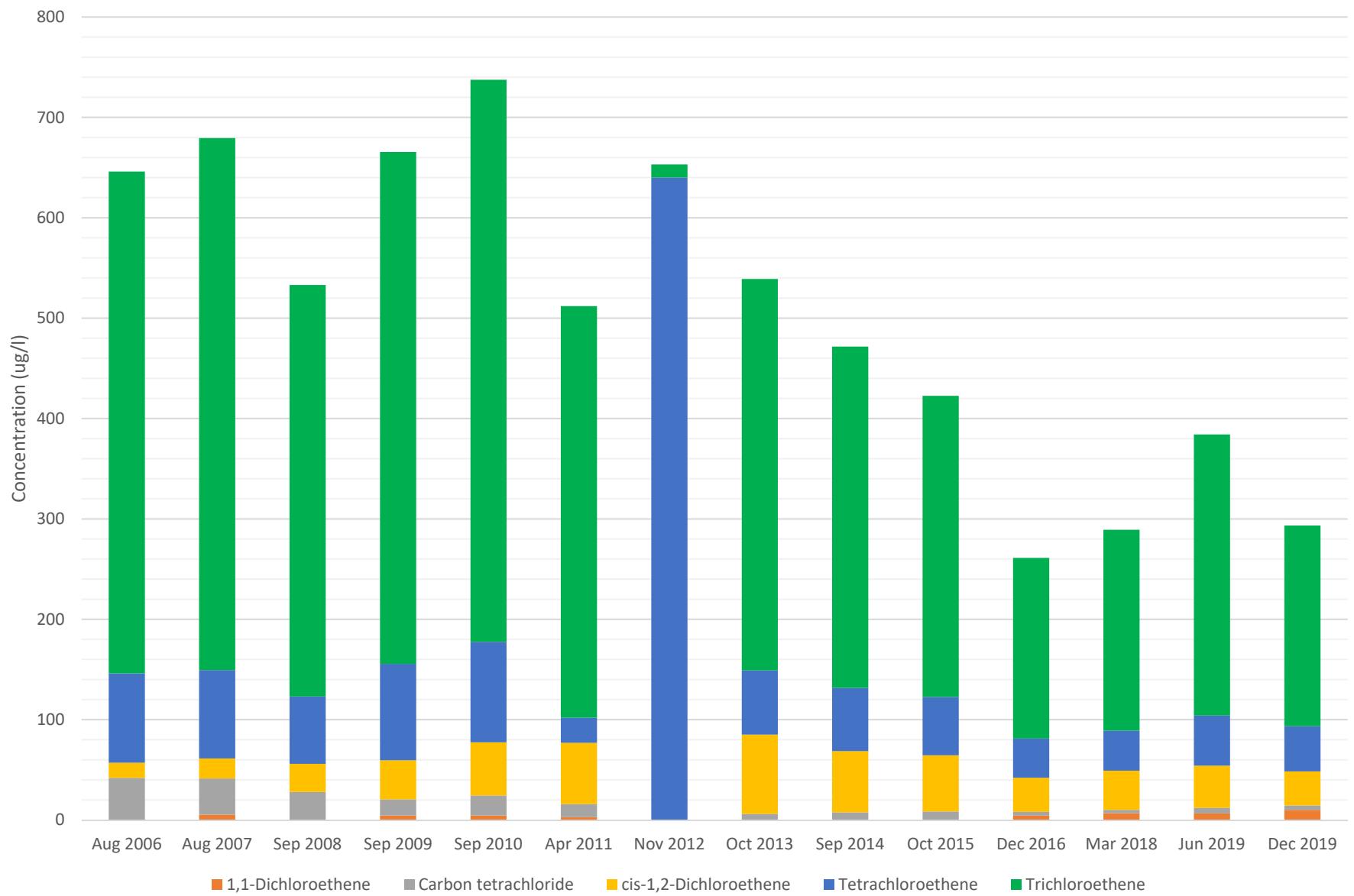
FSMW-13A  
(69 - 79 ft bgs)



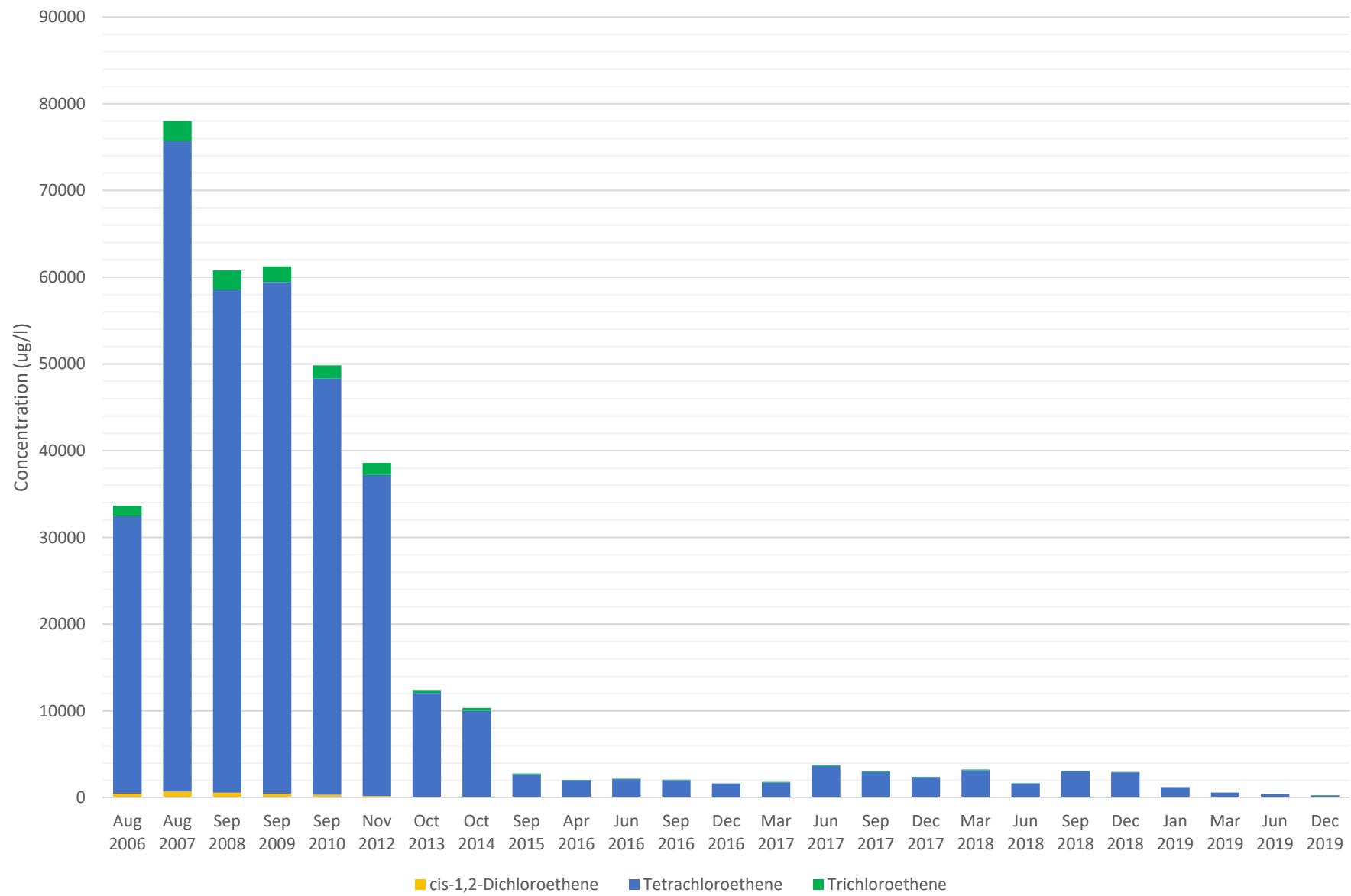
FSMW-13B  
(119 - 129 ft bgs)



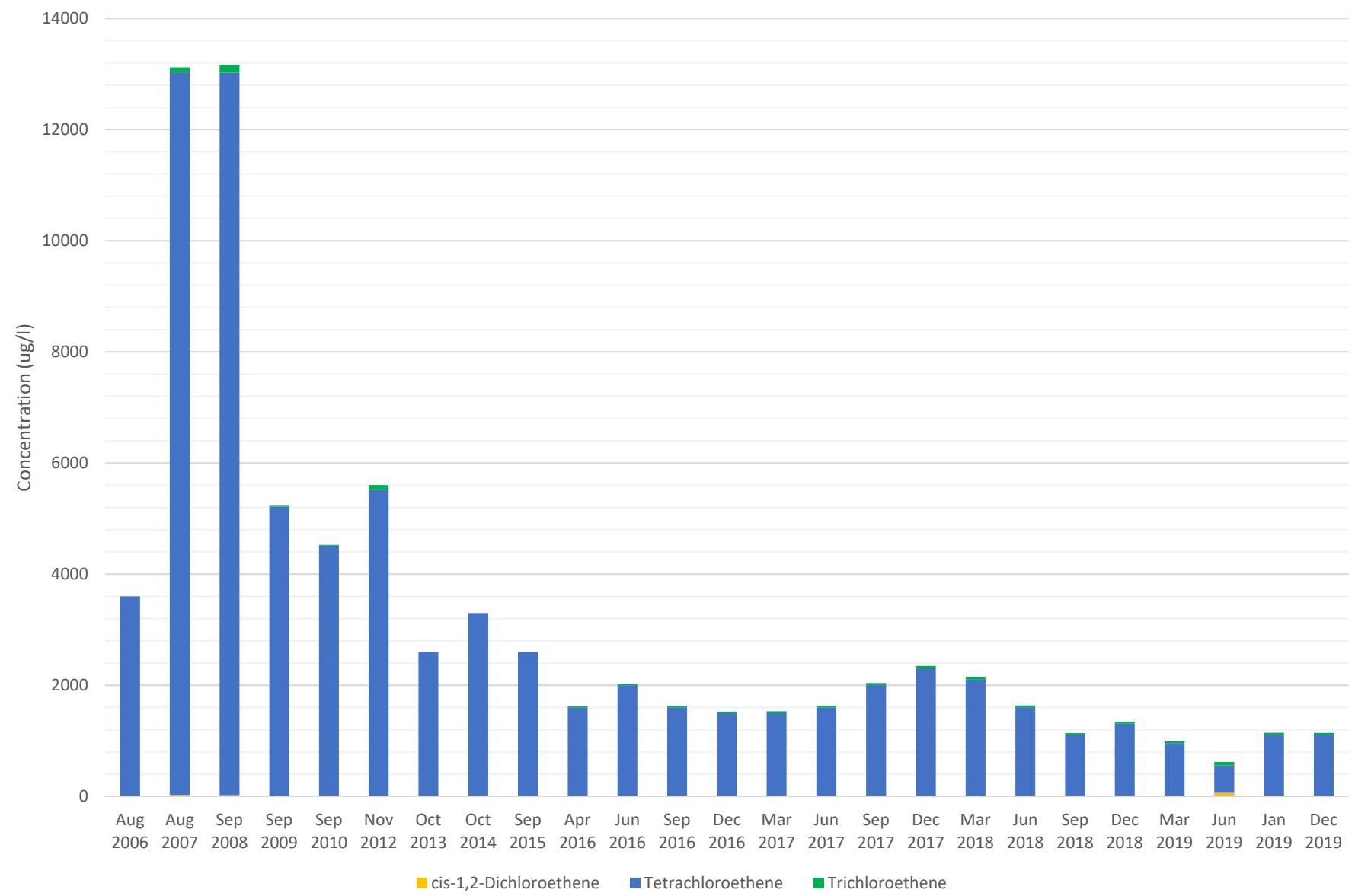
FSMW-13C  
(239 - 249 ft bgs)



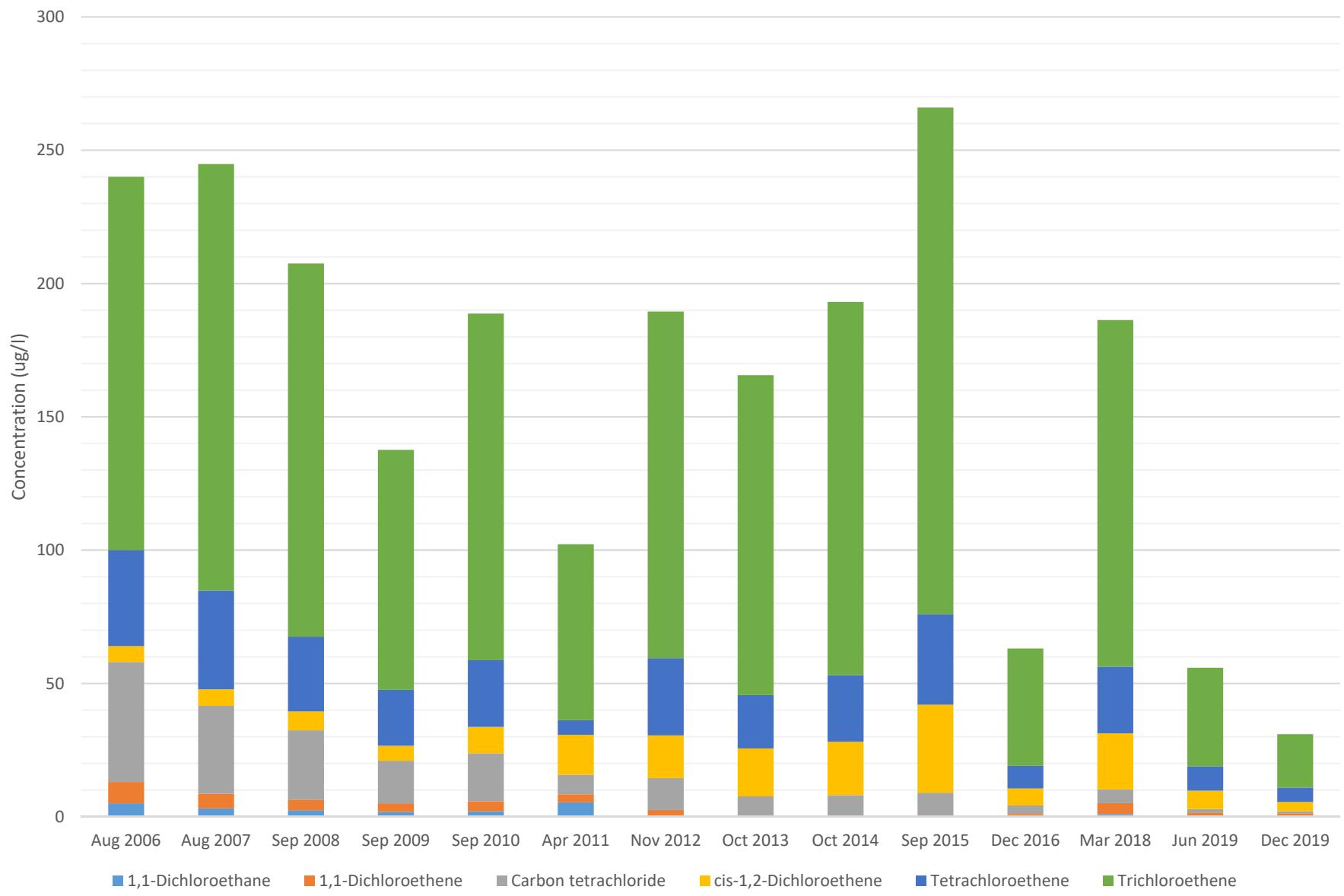
FSMW-14A  
(119 - 129 ft bgs)



FSMW-14B  
(159 - 169 ft bgs)



FSMW-14C  
(239 - 249 ft bgs)



# Appendix G

## Data Usability Report

## DATA USABILITY ANALYSIS

### NEW CASSEL / HICKSVILLE GROUNDWATER CONTAMINATION SUPERFUND SITE

To meet the primary objectives of the Remedial Design (RD) for the New Cassel / Hicksville Groundwater Contamination Superfund Site (the Site) Operable Unit 1 (OU1), the United States Environmental Protection Agency (EPA), Region 2 issued a work assignment to Henningson, Durham & Richardson, Architecture and Engineering PC, in association with HDR Engineering, Inc. (HDR). In order to prepare the RD, a Pre-Design Investigation (PDI) was required to help fill gaps in data. This data usability analysis is for aqueous samples collected in November and December 2019 as part of the PDI at the Site. Twenty-eight groundwater samples were collected from locations defined in the EPA-approved UFP-QAPP. In addition, quality assurance/quality control (QA/QC) samples were collected in the field including field duplicates (two), equipment blanks (nine), field blanks (nine), and trip blanks (nine) for a total of 57 samples; laboratory blanks and QA/QC samples were also prepared. A sample summary is presented as **Table A1**. All aqueous analytical sample results from samples collected as part of the PDI sampling were generated by an EPA Contract Laboratory Program (CLP) lab, Chemtech Consulting Group, for the following analysis and method:

Analysis	Method
Trace Volatile Organic Analytes (TVOA)	EPA Method 524.2

The results provided by the CLP laboratory are considered definitive data and underwent data validation by EPA staff to provide assurance that the data were adequate for its intended use. Validation is typically performed based on an evaluation of project objectives, method-specific QA/QC information (such as holding times, calibration records, laboratory- and field-supplied blanks, duplicate precision, and surrogate and spike recovery), relevant sections of the EPA Region 2 Data Validation Standard Operating Procedures (SOPs), relevant sections of the EPA National Functional Guidelines for Organic Data Validation, and/or the best professional judgment of the validator. Qualifiers (as appropriate) were added to the data based on the results of the validation. Note that EPA staff provide data validation for analyses provided by the Region 2 DESA laboratory and CLP laboratories. An executed narrative and data assessment are provided with each sample delivery group (SDG). Four SDGs (BFE08, BFE21, BFE35, and BFE53) were provided under Case 48602 for the PDI.

As part of the data assessment by the CLP laboratory, data qualifiers are presented along with the analytical results. Qualifiers used with regard to the assessment of the November/December 2019 PDI (aqueous) samples collected are highlighted in bold for clarity.

- **U:** The analyte analyzed for, but was not detected at a level greater than or equal to the level of the adjusted CRQL for sample and method.
- **J:** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- **J+:** The result is an estimated quantity, but the result may be biased high.
- **J-:** The result is an estimated quantity, but the result may be biased low.
- **UJ:** The analyte was not detected at a level greater than or equal to the adjusted CRQL.

**However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.**

- R: The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- N: The analysis indicates the presence of an analyte for which there is presumptive evidence to make a “tentative identification”.
- NJ: The analysis indicated the presence of an analyte that has been “tentatively identified” and the associated numerical value represent its approximate concentration.

The data assessment for the TVOA samples was performed for the following criteria per the EPA SOW: holding time and preservation, deuterated monitoring compounds (DMCs), matrix spike/matrix spike recovery (not applicable to this sampling program), blank contamination (note tentatively identified compounds [TICs] are not validated), mass spectrometer tuning, calibration, internal standards performance (GC/MS), field duplicates, compound identification, contract problems non-compliance, field documentation, other problems, and dilutions, re-extractions and reanalysis.

A minor finding is one where the level of uncertainty is acceptable and no significant bias is observed. One minor finding noted in the EPA validation narrative was that one or more analytes in one or more samples were qualified “J” due to results detected above the method detection limit (MDL) but below the CRQL. This finding was noted for all four SDGs.

A major finding is one where a level of uncertainty exists that may not meet the data quality objectives for the project. A bias is likely to be present in the results. Data has been qualified “J” estimated. “J+” and “J-“ represent likely direction of the bias. This finding was noted in three of the four SDGs.

A critical finding is one where results have an unacceptable level of uncertainty and should not be used for making decisions. Data would be qualified “R” rejected. There were no critical findings in any of the SDGs.

All samples are spiked with DMC compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured DMC recovery limits were outside Table 6 of the SOP HW 34A (Rev 1), qualifications were applied as per Table 7 of the SOP HW 34A (Rev 1) to all the samples and analytes as shown below.

The following samples have DMC/surrogate percent recoveries less than the primary minimum criteria but greater than or equal to the expanded minimum criteria. Detects are qualified as estimated J-. Non-detects are qualified as estimated UJ.

1,1-Dichloroethene-d2: BFE15, BFE18DL, BFE19, BFE28, BFE35, BFE37, BFE38DL, BFE40DL2, BFE41DL2, BFE43, BFE48, BFE49, BFE60, BFE61, and BFE62

- trans-1,2-Dichloroethene, cis-1,2-Dichloroethene and 1,1-Dichloroethene

Toluene-d8: BFE09, BFE12DL, and BFE15

- Trichloroethene, Toluene, Tetrachloroethene, Ethylbenzene, o-Xylene, m,p-Xylene, Styrene and Isopropylbenzene

The following samples have DMC/surrogate percent recoveries greater than the primary maximum criteria. Detects are qualified as estimated J+. Non-detects are not qualified.

1,1-Dichloroethene-d2: BFE11, BFE12, BFE13, BFE14, BFE17, BFE32, BFE33, BFE40, BFE41, and BFE46

- trans-1,2-Dichloroethene, cis-1,2-Dichloroethene and 1,1-Dichloroethene

1,2-Dichlorobenzene-d4: BFE31RE and BFE34RE

- Chlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1, 2-Dichlorobenzene, 1, 2, 4-Trichlorobenzene, 1,2,3-Trichlorobenzene

2-Butanone-d5: BFE17

- Acetone and 2-Butanone

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the amount of contamination present in the QA blanks, the analytes are qualified as per Table 5 of SOP HW-34A (Rev 1).

#### Method Blank Contamination

The following trace volatile samples have common contaminant results <CRQLs. The associated method blank results are less than CRQLs. Detects are qualified U. Sample results have been reported at CRQLs. Detects are qualified U.

Acetone: BFE57, BFE58, and BFE59

Methylene chloride: BFE56

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated method blank has common contaminant analyte concentrations less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQLs.

Acetone: BFE13DL, BFE18DL, BFE19, BFE19DL, BFE20, BFE20DL, BFE39, BFE45, BFE47, BFE51, and BFE52

Methylene chloride: BFE20, BFE20DL, and BFE40

The following trace volatile samples have common contaminant analyte concentrations reported greater than 2x the CRQL and less than 4x the CRQL. The associated method blank has common contaminant analyte concentration less than 2x the CRQL. Concentration in the sample has been reported with an U.

Methylene chloride: BFE41

#### Equipment Blank Contamination

Equipment blank sample had the following contaminant <CRQL. Detects in the associated non-blank samples were qualified per the SOP.

Acetone (3.6 ug/L, 2.5 ug/L): BFE57, BFE58, BFE59, BFE63, and BFE64

Equipment blank sample had the following contaminant >CRQL. Detects in the non-QC field samples were qualified per the SOP.

Chloroform (0.93 ug/L): BFE57, BFE58, and BFE59

Chloromethane (0.24 ug/L, <CRQL): Not detected in the non-QC associated samples.

Toluene (0.24 ug/L, 0.17 ug/L): Not detected in the non-QC associated samples.

#### Field Blank Contamination

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated field blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQL.

Acetone: BFE38, BFE40, BFE41, and BFE46

Field blank sample had the following contaminant <CRQL. Detects in the non-QC field samples were qualified per the SOP.

Acetone (3.6 ug/L, 2.7 ug/L): BFE56, BFE57, BFE58, BFE59, BFE63, and BFE64

Toluene (0.24 ug/L, 0.2 ug/L): BFE63 and BFE64

Chloromethane (0.23 ug/L): No contaminant was found in the associated non-QC samples.

The following trace volatile sample has contaminant analyte concentrations reported greater than the CRQL and less than 2x the CRQL. The associated field blank has contaminant analyte concentration less than the CRQL. Concentration of the sample has been reported with an U.

Chloroform: BFE51

For the remainder of the field blanks, no additional qualification was required due to field blank contamination.

#### Trip Blank Contamination

Trip blank BFE62 has the following analytes less than the CRQL.

Chloromethane (0.27 ug/L): Associated non-QC samples did not have this contaminant.

Either no other problems were found for this criterion, or no additional qualification was required due to trip blank contamination.

#### Storage Blank Contamination

The following trace volatile samples have common contaminant analyte concentrations reported less than 2x the CRQL. The associated storage blank has common contaminant analyte concentration less than 2x the CRQL. Detected compounds are qualified U. Non-detected compounds are not qualified. Sample concentrations have been reported at the CRQLs.

Acetone: BFE11, BFE12, BFE12DL, BFE13, BFE18, BFE24, BFE24DL, BFE25, BFE25DL, BFE26, BFE27, BFE27DL, BFE31, BFE32, BFE32DL, BFE33, BFE33DL, BFE34, and BFE34RE

Methylene chloride: BFE13, BFE14, BFE24DL, BFE27DL, and BFE46

The following samples have analyte results reported less than CRQLs. The associated storage blank results are less than CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

Acetone: BFE53, BFE54, BFE56, BFE57, BFE58, BFE59, BFE60, BFE61, BFE63, and BFE64

The following samples have analyte results reported greater than or equal to 2x the storage blank results. The associated storage blank results are less than CRQLs. Detects are not qualified.

Acetone: BFE56

The following samples have analyte results reported less than CRQLs. The associated storage blank results are greater than or equal to CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

Methylene chloride: BFE56

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

#### Percent Relative Standard Deviation (%RSD) and Percent Difference (%D)

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration.

Percent RSD must be less than maximum %RSD in Table 2 of SOP HW 34A (Rev 1) for all target analytes. For the opening or closing CCV %D must be within the inclusive opening or closing maximum %D limits as listed in Table 2 of SOP HW 34A (Rev 1) for all Target compounds. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and Non- detects are flagged "UJ" for %D values outside criteria only. If %RSD exceeds QC criteria, detects may be qualified as "J" and use professional judgment to qualify non-detects. Qualifications

were applied to the samples and analytes as shown below.

The following samples are associated with an initial calibration percent relative standard deviation (%RSD) outside criteria. Detects are qualified as estimated J. Non-detects are not qualified.

1,2,4-trichlorobenzene: BFE13, BFE20 BFE21, BFE22, BFE23, BFE24, BF24DL, BFE25, BFE26, BFE27, BF27DL, BFE29, BFE30, BFE31, BFE32, BFE33, BFE34, BFE35, BFE37, BFE38, BFE40, BFE41

1,2,3-trichlorobenzene: BFE13, BFE20 BFE21, BFE22, BFE23, BFE24, BF24DL, BFE25, BFE26, BFE27, BF27DL, BFE29, BFE30, BFE31, BFE32, BFE33, BFE34, BFE35, BFE37, BFE38, BFE40, BFE41

The following samples are associated with an opening or closing CCV % Difference exceeding criteria. Detects are qualified as estimated J. Non-detects are qualified as estimated UJ.

Chloroform: BFE08, BFE09, BFE10, BFE11, BFE12, BFE13 and BFE14

1,1-Dichloroethane BFE44

#### Internal Standards Performance GC/MS

Internal standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must be in the range as specified in Table 9 of SOP HW 34A (Rev. 1) of the associated continuing calibration internal standard area. The retention time of the internal standards must be within the range as specified in Table 9 of SOP HW 34A (Rev. 1). If the area count is greater than, all positive results quantitated using that IS are qualified as estimated “J-”, and non-detects are not qualified. If the area count is less than the associated standard, all positive results for compounds quantitated with that IS are qualified as estimated “J+” and all non-detects are qualified “R”.

If an internal standard retention time were not met as specified in Table 9 of SOP HW 34A (Rev. 1), the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction. Qualifications were applied to the samples and analytes as shown below. Qualifications were applied to the samples and analytes as shown below.

The following samples have internal standard area response greater than or equal to expanded minimum criteria and less than primary minimum criteria. Detects are qualified as estimated J+. Non-detects are qualified as estimated UJ.

1,4-Dichlorobenzene-d4: BFE25, BFE31, BF31RE, BFE34, BFE34RE, and BFE46

Bromoform, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 1,2-Dibromo-3-chloropropane, 1, 2, 4-Trichlorobenzene, 1,2,3-Trichlorobenzene

#### Contract Problems, Non-Compliance

In SDGs BEF08, BFE21, and BFE35 the initial calibration percent relative standard deviation (%RSD) is outside criteria for 1,2,4-trichlorobenzene and 1,2,3-trichlorobenzene.

### Other Problems

BFE40: 1,1-Dichloroethene results are qualified “J” as the reported values are over the calibration range and value reported in dilution analysis is less than CRQL and has not been used.

### Dilutions, Re-extractions and Reanalysis

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used. See summary report and EDD for applicable samples and analytes.

The following diluted samples were only used for one or more analytes:

BFE11DL, BFE12DL, BFE13DL, BFE14DL, BFE18DL, BFE19DL, BFE20DL, BFE24DL, BFE25DL, BFE27DL, BFE32DL, BFE33DL, BFE38DL, BFE39DL, BFE40DL, BFE40DL2, BFE41DL, BFE41DL2, BFE46DL, BFE63, and BFE64

There were no other issues identified in the EPA validation narrative for the PDI samples collected in November/December 2019. All data are usable as reported.

The following sections provide an evaluation of the usability of the data for the Site, as compared to the site-specific QA/QC requirements outlined in the EPA-approved Final QAPP (HDR, 2016).

#### *Precision*

Precision is the measurement of agreement in repeated tests of the same or identical samples, under prescribed conditions. Precision data indicate how consistent and reproducible the field sampling or analytical procedures have been. For the Site data, precision was determined through replicate measurements of the same or identical samples, i.e., a field duplicate sample. The acceptance criterion for the field duplicate is a relative percent difference (RPD) of less than 25 percent. The RPD was not calculated for any set of sample pairs where concentrations were not detected in one or both of the data sets; agreement between the original sample and the duplicate can be inferred when both of the results are non-detects. The remainder of the sample pairs contained detections in both of the data sets and were within the RPD limits prescribed. The field duplicate data is summarized on **Table A2**. All of the RPD results were less than 25% and therefore indicate the sampling program achieved overall good reproducibility.

#### *Accuracy*

Accuracy is the degree of agreement of a measured sample result or average of results with an accepted reference or true value. It is the quantitative measurement of the bias of a system, and is expressed in terms of percent recovery (%R). Accuracy of the data can be determined through the use of surrogate compounds, internal standard compounds, matrix spike samples (not applicable to this sampling program), and laboratory control spike samples. Findings from the data validation assessment are presented above. Based on the information provided and available results, the laboratories achieved a good degree of accuracy.

#### *Representativeness*

Representativeness is the degree to which the results of the analyses accurately and precisely represent a

characteristic of a population, a process condition, or an environmental condition. In this case, representativeness is the degree to which the data reflect the contaminants present and their concentration magnitudes in the sampled site areas. Representativeness of data occurs through the selection of appropriate sampling locations and the implementation of approved sampling procedures. The sampling locations for the PDI consisted solely of fixed sample locations, i.e., groundwater monitoring wells. In addition, field personnel followed the procedures outlined in the EPA-approved QAPP for the Site.

#### *Comparability*

To increase the degree of comparability between data results and between past, present and future sampling events, standard environmental analytical methods were employed by the off-site laboratory. Routine Analytical Service (RAS) sample analyses available through the CLP were utilized for the VOA as specified in the SOWs.

#### *Completeness*

Completeness is determined by the percentage of samples that meet or exceed all of the criteria objective levels (i.e., the number of usable sample results for the data set). All of the sample results were determined to be usable as none of the samples were rejected. See **Table A3**.

#### *Sensitivity*

Sensitivity is the ability of the analytical method or instrument to detect a target analyte at the level of interest. The MDL is a statistically-derived value that represents a 99 percent confidence level that the reported instrument signal is different from a blank sample. The quantitation limit (QL) is the minimum concentration of an analyte that can be routinely identified by the laboratory, and is generally between three and ten times the MDL. Analytical methods are matrix-, moisture-and dilution-dependent. The sample quantitation limit (SQL) actually determined for a constituent for a specific sample may be higher than the QL due to these issues. The laboratory was able to achieve the standard reporting limits for each analyte requested for trace level VOAs with exceptions as noted above.

#### *Blank Contamination Elimination*

Blanks were prepared to identify any contamination that may have been introduced into the samples. Validation determines the need for qualification of sampling analytical results based on blank contamination. Field, equipment, and trip blank samples were prepared by the field crew and submitted with the aqueous samples for the November/December 2019 sampling event. Method blanks and storage blanks were analyzed for each batch of samples. Findings from the data validation assessment are presented above. The results for the field QC are provided in **Table A4**.

#### *Usability Summary*

The definitive data for the PDI sampling event conducted in November/December 2019 fulfilled the site-specific QA/QC requirements. Overall, the data met the project DQOs, and are appropriate to characterize the levels of contamination in the aqueous samples collected from the Site.



**Table A1 - Sample Summary (November/December 2019)**  
**2019 Sampling Event Report**  
**New Cassel/Hicksville Groundwater Contamination Site OU1**  
**New Cassel/Hicksville, New York**

HDR Field Sample ID	CLP ID	Well ID	Sample Type	Parent Sample ID	Laboratory Name	Sample Collected By	Sample Date	Matrix	VOCs by EPA 524.2
									Initial
									Number of Analytes
EB-20191125	BFE08		EB		CHM	HDR	11/25/2019	WQ	51
FB-20191125	BFE09		FB		CHM	HDR	11/25/2019	WQ	51
MW-1-20191125	BFE11	MW-1	N		CHM	HDR	11/25/2019	WG	51
MW-2-20191125	BFE12	MW-2	N		CHM	HDR	11/25/2019	WG	51
MW-3-20191125	BFE13	MW-3	N		CHM	HDR	11/25/2019	WG	51
MW-4-20191125	BFE14	MW-4	N		CHM	HDR	11/25/2019	WG	51
TB-20191125	BFE10		TB		CHM	HDR	11/25/2019	WQ	51
EB-20191126	BFE15		EB		CHM	HDR	11/26/2019	WQ	51
EW-1B-20191126	BFE18	EW-1B	N		CHM	HDR	11/26/2019	WG	51
EW-1C-20191126	BFE19	EW-1C	N		CHM	HDR	11/26/2019	WG	51
FB-20191126	BFE16		FB		CHM	HDR	11/26/2019	WQ	51
MW-14-20191126	BFE20	MW-14	N		CHM	HDR	11/26/2019	WG	51
TB-20191126	BFE17		TB		CHM	HDR	11/26/2019	WQ	51
EB-20191202	BFE21		EB		CHM	HDR	12/2/2019	WQ	51
FB-20191202	BFE22		FB		CHM	HDR	12/2/2019	WQ	51
FSMW-13B-20191202	BFE25	FSMW-13B	N		CHM	HDR	12/2/2019	WG	51
FSMW-13C-20191202	BFE24	FSMW-13C	N		CHM	HDR	12/2/2019	WG	51
FSMW-13C-20191202-1	BFE27	FSMW-13C	FD	FSMW-13C-20191202	CHM	HDR	12/2/2019	WG	51
FSMW-14C-20191202	BFE26	FSMW-14C	N		CHM	HDR	12/2/2019	WG	51
TB-20191202	BFE23		TB		CHM	HDR	12/2/2019	WQ	51
EB-20191203	BFE28		EB		CHM	HDR	12/3/2019	WQ	51
EW-2B-20191203	BFE34	EW-2B	N		CHM	HDR	12/3/2019	WG	51
FB-20191203	BFE29		FB		CHM	HDR	12/3/2019	WQ	51
MW-16D-20191203	BFE32	MW-16D	N		CHM	HDR	12/3/2019	WG	51
MW-16S-20191203	BFE31	MW-16S	N		CHM	HDR	12/3/2019	WG	51
MW-9-20191203	BFE33	MW-9	N		CHM	HDR	12/3/2019	WG	51
TB-20191203	BFE30		TB		CHM	HDR	12/3/2019	WQ	51
EB-20191204	BFE35		EB		CHM	HDR	12/4/2019	WQ	51
EX-2-20191204	BFE38	EX-2	N		CHM	HDR	12/4/2019	WG	51

**Notes:**

Numbers in the VOCs column represent the number of VOCs analytes reported for each sample.

The methods listed for VOCs included in the electronic data deliverable from the laboratories and is based on standard operating procedures (SOPs) consistent with the quality assurance project plan requested methods.

**Abbreviations:**

EB = equipment blank  
FB = field blank  
FD = field duplicate  
N = normal sample  
TB = trip blank

VOC = volatile organic compound  
EPA = Environmental Protection Agency  
CHM = ChemTech Consulting Group  
WG = groundwater  
WQ = blank water  
HDR = HDR, Inc.



**Table A1 - Sample Summary (November/December 2019)**  
**2019 Sampling Event Report**  
**New Cassel/Hicksville Groundwater Contamination Site OU1**  
**New Cassel/Hicksville, New York**

HDR Field Sample ID	CLP ID	Well ID	Sample Type	Parent Sample ID	Laboratory Name	Sample Collected By	Sample Date	Matrix	VOCs by EPA 524.2
									Initial
									Number of Analytes
FB-20191204	BFE36		FB		CHM	HDR	12/4/2019	WQ	51
MW-11D-20191204	BFE41	MW-11D	N		CHM	HDR	12/4/2019	WG	51
MW-11S-20191204	BFE40	MW-11S	N		CHM	HDR	12/4/2019	WG	51
MW-13-20191204	BFE39	MW-13	N		CHM	HDR	12/4/2019	WG	51
TB-20191204	BFE37		TB		CHM	HDR	12/4/2019	WQ	51
EB-20191205	BFE42		EB		CHM	HDR	12/5/2019	WQ	51
FB-20191205	BFE43		FB		CHM	HDR	12/5/2019	WQ	51
MW-10-20191205	BFE47	MW-10	N		CHM	HDR	12/5/2019	WG	51
MW-5-20191205	BFE45	MW-5	N		CHM	HDR	12/5/2019	WG	51
MW-6-20191205	BFE46	MW-6	N		CHM	HDR	12/5/2019	WG	51
TB-20191205	BFE44		TB		CHM	HDR	12/5/2019	WQ	51
EB-20191206	BFE48		EB		CHM	HDR	12/6/2019	WQ	51
FB-20191206	BFE49		FB		CHM	HDR	12/6/2019	WQ	51
MW-7-20191206	BFE51	MW-7	N		CHM	HDR	12/6/2019	WG	51
MW-8-20191206	BFE52	MW-8	N		CHM	HDR	12/6/2019	WG	51
TB-20191206	BFE50		TB		CHM	HDR	12/6/2019	WQ	51
EB-20191209	BFE53		EB		CHM	HDR	12/9/2019	WQ	51
FB-20191209	BFE54		FB		CHM	HDR	12/9/2019	WQ	51
MW-15-20191209	BFE58	MW-15	N		CHM	HDR	12/9/2019	WG	51
MW-15-20191209-1	BFE59	MW-15	FD	MW-15-20191209	CHM	HDR	12/9/2019	WG	51
MW-17D-20191209	BFE56	MW-17D	N		CHM	HDR	12/9/2019	WG	51
MW-17S-20191209	BFE57	MW-17S	N		CHM	HDR	12/9/2019	WG	51
TB-20191209	BFE55		TB		CHM	HDR	12/9/2019	WQ	51
EB-20191210	BFE60		EB		CHM	HDR	12/10/2019	WQ	51
EX-1-20191210	BFE64	EX-1	N		CHM	HDR	12/10/2019	WG	51
FB-20191210	BFE61		FB		CHM	HDR	12/10/2019	WQ	51
MW-12-20191210	BFE63	MW-12	N		CHM	HDR	12/10/2019	WG	51
TB-20191210	BFE62		TB		CHM	HDR	12/10/2019	WQ	51

**Notes:**

Numbers in the VOCs column represent the number of VOCs analytes reported for each sample.

The methods listed for VOCs included in the electronic data deliverable from the laboratories and is based on standard operating procedures (SOPs) consistent with the quality assurance project plan requested methods.

**Abbreviations:**

EB	= equipment blank	VOC	= volatile organic compound
FB	= field blank	EPA	= Environmental Protection Agency
FD	= field duplicate	CHM	= ChemTech Consulting Group
N	= normal sample	WG	= groundwater
TB	= trip blank	WQ	= blank water
		HDR	= HDR, Inc.



**Table A2 - Groundwater VOCs Field Duplicate Analytical Sampling Results**  
**2019 Sampling Event Report**  
**New Cassel/Hicksville Groundwater Contamination Site OU1**  
**New Cassel/Hicksville, New York**

					Well ID	FSMW-13C		FSMW-13C		RPD	ABS	MW-15		MW-15		RPD	ABS	
					Sample ID	FSMW-13C-20191202		FSMW-13C-20191202-1	MW-15			MW-15						
					CLP ID	BFE24		BFE27	MW-15-20191209			MW-15-20191209-1						
					Sample Date	12/2/2019		12/2/2019	BFE58			BFE59						
									12/9/2019				12/9/2019					
	Cas No.	Units	NYSDEC Class GA Standards	5 x CRQL	Results (ug/l)	Qual.	Results	Qual.	Results (ug/l)			Qual.	Results	Qual.				
<b>Volatile Organic Compounds (VOCs)</b>																		
1,1,1-Trichloroethane	71-55-6	ug/l	5	2.5	1.3		1.3		0%	0	0.5	U	0.5	U	-	-		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	5	2.5	0.97		0.95		2%	0.02	0.5	U	0.5	U	-	-		
1,1,2-Trichloroethane	79-00-5	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,1-Dichloroethane	75-34-3	ug/l	5	2.5	0.91		0.9		1%	0.01	0.5	U	0.5	U	-	-		
1,1-Dichloroethene	75-35-4	ug/l	5	2.5	10		9.9		1%	0.1	0.5	U	0.5	U	-	-		
1,2,3-Trichlorobenzene	87-61-6	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2,4-Trichlorobenzene	120-82-1	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2-Dibromoethane	106-93-4	ug/l	0.0006	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2-Dichlorobenzene	95-50-1	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2-Dichloroethane	107-06-2	ug/l	0.6	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,2-Dichloropropane	78-87-5	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,3-Dichlorobenzene	541-73-1	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
1,4-Dichlorobenzene	106-46-7	ug/l	3	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
2-Butanone	78-93-3	ug/l	50	25	5	U	5	U	-	-	5	U	5	U	-	-		
2-Hexanone	591-78-6	ug/l	50	25	5	U	5	U	-	-	5	U	5	U	-	-		
4-Methyl-2-Pentanone	108-10-1	ug/l	NS	25	5	U	5	U	-	-	5	U	5	U	-	-		
Acetone	67-64-1	ug/l	50	25	5	U	5	U	-	-	5	U	5	U	-	-		
Benzene	71-43-2	ug/l	1	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
Bromochloromethane	74-97-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
Bromodichloromethane	75-27-4	ug/l	50	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
Bromoform	75-25-2	ug/l	50	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
Bromomethane	74-83-9	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		
Carbon Disulfide	75-15-0	ug/l	60	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-		

**Notes:**

U: Non-Detect Value

J: Estimated values (+/- indicates likely bias direction)

NS: No Standard

ug/l: microgram per liter

RPD: Relative Percent Difference

CRQL: Contract Required Quantitation Limit

-: RPD and ABS values cannot be calculated as one or both results are U qualified.

Values that are **bold** and **shaded** exceed NYSDEC Class GA Standards:



**Table A2 - Groundwater VOCs Field Duplicate Analytical Sampling Results**  
**2019 Sampling Event Report**  
**New Cassel/Hicksville Groundwater Contamination Site OU1**  
**New Cassel/Hicksville, New York**

	Well ID					FSMW-13C		FSMW-13C		RPD	ABS	MW-15		MW-15		RPD	ABS				
	Sample ID					FSMW-13C-20191202		FSMW-13C-20191202-1				MW-15		MW-15							
	CLP ID					BFE24		BFE27				MW-15-20191209		MW-15-20191209-1							
	Sample Date					12/2/2019		12/2/2019				BFE58		BFE59							
	Cas No.	Units	NYSDEC Class GA Standards	5 x CRQL	Results (ug/l)	Qual.	Results	Qual.	Results (ug/l)	Qual.	Results	Qual.	Results (ug/l)	Qual.	Results	Qual.					
	Carbon Tetrachloride	56-23-5	ug/l	5	2.5	4.4		4.3		2%	0.1	0.5	U	0.5	U	-	-				
Chlorobenzene	108-90-7	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Chloroethane	75-00-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Chloroform	67-66-3	ug/l	7	2.5	6.2		6.2		0%	0	0.5	U	0.5	U	-	-					
Chloromethane	74-87-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	2.5	34		32		6%	2	0.5	U	0.5	U	-	-					
cis-1,3-Dichloropropene	10061-01-5	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Cyclohexane	110-82-7	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Dibromochloromethane	124-48-1	ug/l	50	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Dichlorodifluoromethane	75-71-8	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Ethylbenzene	100-41-4	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Isopropylbenzene	98-82-8	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
M, P Xylenes	179601-23-1	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Methyl Acetate	79-20-9	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Methyl tert-Butyl Ether	1634-04-4	ug/l	10	2.5	1.2		1.2		0%	0	0.5	U	0.5	U	-	-					
Methylcyclohexane	108-87-2	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Methylene Chloride	75-09-2	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Styrene	100-42-5	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	2.5	45		44		2%	1	0.62			0.54		14%	0.08				
Toluene	108-88-3	ug/l	5	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
trans-1,2-Dichloroethene	156-60-5	ug/l	5	2.5	0.26	J	0.23	J	12%	0.03	0.5	U	0.5	U	-	-					
trans-1,3-Dichloropropene	10061-02-6	ug/l	NS	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					
Trichloroethylene (TCE)	79-01-6	ug/l	5	2.5	200		190		5%	10	0.5	U	0.5	U	-	-					
Trichlorofluoromethane	75-69-4	ug/l	5	2.5	0.12	J	0.12	J	0%	0	0.5	U	0.5	U	-	-					
Vinyl Chloride	75-01-4	ug/l	2	2.5	0.5	U	0.5	U	-	-	0.5	U	0.5	U	-	-					

**Notes:**

U: Non-Detect Value

J: Estimated values (+/- indicates likely bias direction)

NS: No Standard

ug/l: microgram per liter

RPD: Relative Percent Difference

CRQL: Contract Required Quantitation Limit

-: RPD and ABS values cannot be calculated as one or both results are U qualified.

Values that are **bold and shaded** exceed NYSDEC Class GA Standards:

**Table A3 - Groundwater Sample Results Completeness  
2019 Sampling Event Report  
New Cassel/Hicksville Groundwater Contamination Site OU1  
New Cassel/Hicksville, New York**

<b>Groundwater Results</b>	<b>VOCs</b>
	<b>Total Numbers</b>
Non-Detects	1282
No. of Detects	248
No. of Estimated Hits (with Qualifier J, J+, NJ and NJD)	92
Non-Reportable Results	0
No. of Rejects	0
Total	1530
Percent Rejected	0.00%
Percent Estimated Hits	6.01%
Total Completeness	100%

**Notes:**

The counts and calculations above do not include field, equipment or trip blank samples, only environmental samples (including field duplicate and MS/MSD samples)



Table A4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results

2019 Sampling Event Report

New Cassel/Hicksville Groundwater Contamination Site OU1

New Cassel/Hicksville, New York

Sample ID				EB-20191125		EB-20191126		EB-20191202		EB-20191203		EB-20191204		EB-20191205		EB-20191206		EB-20191209		EB-20191210		FB-20191125		FB-20191126		FB-201
CLP ID				BFE08		BFE15		BFE21		BFE28		BFE35		BFE42		BFE48		BFE53		BFE60		BFE09		BFE16		BF1
Sample Date				11/25/2019		11/26/2019		12/2/2019		12/3/2019		12/4/2019		12/5/2019		12/6/2019		12/9/2019		12/10/2019		11/25/2019		11/26/2019		12/2/
	Cas No.	Units	NYSDEC Class GA Standards (ug/l)	Results (ug/l)	Qual	Results (ug/l)																				
<b>Volatile Organic Compounds (VOCs)</b>																										
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5																				
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5																				
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NS	0.5	U	0.5																				
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5																				
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	U	0.5																				
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5												
1,2,3-Trichlorobenzene	87-61-6	ug/l	NS	0.5	U	0.5																				
1,2,4-Trichlorobenzene	120-82-1	ug/l	NS	0.5	U	0.5																				
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5																				
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5																				
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5																				
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5																				
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5																				
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5																				
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5																				
2-Butanone	78-93-3	ug/l	NS	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
2-Hexanone	591-78-6	ug/l	NS	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
4-Methyl-2-Pentanone	108-10-1	ug/l	NS	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
Acetone	67-64-1	ug/l	NS	3.5	J	2.7	J	2	J	1.9	J	2.2	J	2.5	J	2.3	J	5	U	5	U	5	U	4	J	3.4
Benzene	71-43-2	ug/l	1	0.5	U	0.5																				
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5																				
Bromodichloromethane	75-27-4	ug/l	NS	0.5	U	0.5																				
Bromoform	75-25-2	ug/l	NS	0.5	U	0.5																				
Bromomethane	74-83-9	ug/l	5	0.5	U	0.5																				
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5																				
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5																		

**Table A4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results**
**2019 Sampling Event Report**
**New Cassel/Hicksville Groundwater Contamination Site OU1**
**New Cassel/Hicksville, New York**

Sample ID				91202	FB-20191203		FB-20191204		FB-20191205		FB-20191206		FB-20191209		FB-20191210		TB-20191125		TB-20191126		TB-20191202		TB-20191203		TB-20191204		
CLP ID				E22	BFE29		BFE36		BFE43		BFE49		BFE54		BFE61		BFE10		BFE17		BFE23		BFE30		BFE37		
Sample Date				2019	12/3/2019		12/4/2019		12/5/2019		12/6/2019		12/9/2019		12/10/2019		12/25/2019		12/26/2019		12/2/2019		12/3/2019		12/4/2019		
	Cas No.	Units	NYSDEC Class GA Standards (ug/l)		Qual	Results (ug/l)	Qual																				
<b>Volatile Organic Compounds (VOCs)</b>					U	0.5	U																				
1,1,1-Trichloroethane	71-55-6	ug/l	5		U	0.5	U																				
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5		U	0.5	U																				
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NS		U	0.5	U																				
1,1,2-Trichloroethane	79-00-5	ug/l	1		U	0.5	U																				
1,1-Dichloroethane	75-34-3	ug/l	5		U	0.5	U																				
1,1-Dichloroethene	75-35-4	ug/l	5		U	0.5	U																				
1,2,3-Trichlorobenzene	87-61-6	ug/l	NS		U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	120-82-1	ug/l	NS		U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04		U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	106-93-4	ug/l	0.0006		J	2.1	J	2	J	2.4	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	95-50-1	ug/l	3		U	0.5	U																				
1,2-Dichloroethane	107-06-2	ug/l	0.6		U	0.5	U																				
1,2-Dichloropropane	78-87-5	ug/l	1		U	0.5	U																				
1,3-Dichlorobenzene	541-73-1	ug/l	3		U	0.5	U																				
1,4-Dichlorobenzene	106-46-7	ug/l	3		U	0.5	U																				
2-Butanone	78-93-3	ug/l	NS		U	0.5	U																				
2-Hexanone	591-78-6	ug/l	NS		U	0.5	U																				
4-Methyl-2-Pentanone	108-10-1	ug/l	NS		U	0.5	U																				
Acetone	67-64-1	ug/l	NS		U	0.5	U																				
Benzene	71-43-2	ug/l	1		U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U												
Bromochloromethane	74-97-5	ug/l	5		U	0.5	U	0.23	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U								
Bromodichloromethane	75-27-4	ug/l	NS		U	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ
Bromoform	75-25-2	ug/l	NS		U	0.5	U																				
Bromomethane	74-83-9	ug/l	5		U	0.5	U																				
Carbon Disulfide	75-15-0	ug/l	60		U	0.5	U																				
Carbon Tetrachloride	56-23-5	ug/l	5	</																							

**Table A4 - Groundwater VOCs Field and Equipment Blanks and VOCs Trip Blank Analytical Sampling Results**  
**2019 Sampling Event Report**  
**New Cassel/Hicksville Groundwater Contamination Site OU1**  
**New Cassel/Hicksville, New York**

				Sample ID	TB-20191205		TB-20191206		TB-20191209		TB-20191210	
				CLP ID	BFE44		BFE50		BFE55		BFE62	
				Sample Date	12/5/2019		12/6/2019		12/9/2019		12/10/2019	
	Cas No.	Units	NYSDEC Class GA Standards (ug/l)		Results (ug/l)	Qual						
<b>Volatile Organic Compounds (VOCs)</b>												
1,1,1-Trichloroethane	71-55-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
1,1,2-Trichloroethane	79-00-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	
1,1-Dichloroethane	75-34-3	ug/l	5	0.5	UJ	0.5	U	0.5	U	0.5	U	
1,1-Dichloroethene	75-35-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	UJ	
1,2,3-Trichlorobenzene	87-61-6	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
1,2,4-Trichlorobenzene	120-82-1	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.04	0.5	U	0.5	U	0.5	U	0.5	U	
1,2-Dibromoethane	106-93-4	ug/l	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	
1,2-Dichlorobenzene	95-50-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	
1,2-Dichloroethane	107-06-2	ug/l	0.6	0.5	U	0.5	U	0.5	U	0.5	U	
1,2-Dichloropropane	78-87-5	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	
1,3-Dichlorobenzene	541-73-1	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	
1,4-Dichlorobenzene	106-46-7	ug/l	3	0.5	U	0.5	U	0.5	U	0.5	U	
2-Butanone	78-93-3	ug/l	NS	5	U	5	U	5	U	5	U	
2-Hexanone	591-78-6	ug/l	NS	5	U	5	U	5	U	5	U	
4-Methyl-2-Pentanone	108-10-1	ug/l	NS	5	U	5	U	5	U	5	U	
Acetone	67-64-1	ug/l	NS	5	U	5	U	5	U	5	U	
Benzene	71-43-2	ug/l	1	0.5	U	0.5	U	0.5	U	0.5	U	
Bromochloromethane	74-97-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Bromodichloromethane	75-27-4	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Bromoform	75-25-2	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Bromomethane	74-83-9	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Carbon Disulfide	75-15-0	ug/l	60	0.5	U	0.5	U	0.5	U	0.5	U	
Carbon Tetrachloride	56-23-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Chlorobenzene	108-90-7	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Chloroethane	75-00-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Chloroform	67-66-3	ug/l	7	0.5	U	0.65		0.5	U	0.5	U	
Chloromethane	74-87-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.27	J	
cis-1,2-Dichloroethylene	156-59-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	UJ	
cis-1,3-Dichloropropene	10061-01-5	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Cyclohexane	110-82-7	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Dibromochloromethane	124-48-1	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Dichlorodifluoromethane	75-71-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Ethylbenzene	100-41-4	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Isopropylbenzene	98-82-8	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
M, P Xylenes	179601-23-1	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Methyl Acetate	79-20-9	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Methyl tert-Butyl Ether	1634-04-4	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Methylcyclohexane	108-87-2	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Methylene Chloride	75-09-2	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Styrene	100-42-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Tetrachloroethylene(PCE)	127-18-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Toluene	108-88-3	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
trans-1,2-Dichloroethene	156-60-5	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	UJ	
trans-1,3-Dichloropropene	10061-02-6	ug/l	NS	0.5	U	0.5	U	0.5	U	0.5	U	
Trichloroethylene (TCE)	79-01-6	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Trichlorofluoromethane	75-69-4	ug/l	5	0.5	U	0.5	U	0.5	U	0.5	U	
Vinyl Chloride	75-01-4	ug/l	2	0.5	U	0.5	U	0.5	U	0.5	U	

**Notes:**

U: Non-Detect Value

ug/l: microgram per liter

J: Estimated values (+/- indicates likely bias direction)

NS: No Standard